

RIF-4-RPT-LV-120AC/3X21 - Relay module



2903277

<https://www.phoenixcontact.com/us/products/2903277>

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Preassembled relay module with Push-in connection, consisting of: relay base, power contact relay, plug-in display/interference suppression module, and retaining bracket. Contact switching type: 3 changeover contacts. Input voltage: 120 V AC

Product description

The pluggable electromechanical and solid-state relays in the RIFLINE complete product range and the base are recognized and approved in accordance with UL 508. The relevant approvals can be called up at the individual components in question.

Commercial data

Item number	2903277
Packing unit	5 pc
Minimum order quantity	5 pc
Sales key	C465
Product key	DK652C
GTIN	4046356731669
Weight per piece (including packing)	210.4 g
Weight per piece (excluding packing)	210.4 g
Customs tariff number	85364900
Country of origin	CN

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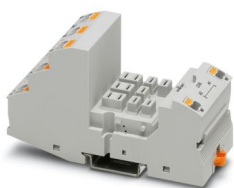
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Set consists of

RIF-4-BPT/3X21 - Relay base

2900961

<https://www.phoenixcontact.com/us/products/2900961>



Relay base RIF-4..., for high-power relay with 2 or 3 changeover contacts or 3 N/O contacts, Push-in connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

REL-PR3-120AC/3X21 - Single relay

2903704

<https://www.phoenixcontact.com/us/products/2903704>



Plug-in high-power relay with power contacts, 3 changeover contacts, coil voltage: 120 V AC

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RIF-LV-120-230 AC/110 DC - Plug-in module

2900944

<https://www.phoenixcontact.com/us/products/2900944>



Plug-in module, for mounting on RIF-1, RIF-2, RIF-3, and RIF-4, with varistor and yellow LED, input voltage: 120 V AC... 230 V AC / 110 V DC $\pm 20\%$

RIF-RH-4 - Retaining bracket

2900956

<https://www.phoenixcontact.com/us/products/2900956>



Relay retaining bracket, with holder for marking material, suitable for RIF-4 relay base, for high-power relay

Technical data

Product properties

Product type	Relay Module
Product family	RIFLINE complete
Application	Universal
Operating mode	100% operating factor
Mechanical service life	approx. 10^7 cycles

Insulation characteristics

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	2

Data management status

Date of last data management	20.01.2026
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Electrical properties

Maximum power dissipation for nominal condition	2.88 W
Test voltage (Winding/contact)	2.5 kV _{rms} (50 Hz, 1 min., winding/contact)
Test voltage (Contact/contact)	2.5 kV _{rms} (50 Hz, 1 min., contact/contact)
Rated insulation voltage	250 V AC
Rated surge voltage	4 kV

Input data

Coil side

Nominal input voltage U_N	120 V AC
Input voltage range	102 V AC ... 132 V AC (20 °C)
Input voltage range in reference to U_N	see diagram
Mains frequency	50/60 Hz
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at U_N	24 mA
Typical response time	5 ms ... 25 ms
Typical release time range	5 ms ... 20 ms
Coil voltage	120 V AC
Protective circuit	Varistor
Operating voltage display	Yellow LED

Output data

Switching

Contact switching type	3 changeover contacts
Type of switch contact	Single contact

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Contact material	AgNi
Maximum switching voltage	440 V AC
	250 V DC
Minimum switching voltage	10 V (24 mA)
Limiting continuous current	8 A (see diagram)
Maximum inrush current	50 A (20 ms, N/O contacts)
Min. switching current	10 mA (24 V)
Interrupting rating (ohmic load) max.	216 W (24 V DC)
	124 W (48 V DC)
	108 W (60 V DC)
	52 W (110 V DC)
	70 W (220 V DC)
	2250 VA (250 V AC)
	4000 VA (440 V AC)
3-phase motor load	1500 W
Motor load according to UL 508	1/3 HP, 120 V AC (single-phase AC motor)
	1/2 HP, 240 V AC (single-phase AC motor)
	1/2 HP, 240 V AC (three-phase induction motor)
Utilization category CB Scheme (IEC 60947-5-1)	AC15, 1.5 A/240 V (N/O contact)
	DC13, 2 A/240 V (N/O contact)

Connection data

Coil side

Connection method	Push-in connection
Stripping length	8 mm
Conductor cross-section rigid	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)

Contact side

Connection method	Push-in connection
Stripping length	10 mm
Conductor cross-section rigid	0.14 mm ² ... 2.5 mm ²
Conductor cross-section flexible	0.14 mm ² ... 2.5 mm ²
	0.14 mm ² ... 2.5 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 ... 14 (solid)
	26 ... 14 (flexible)

Dimensions

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Item dimensions

Width	43 mm
Height	111 mm
Depth	90 mm

Drill hole

Diameter	3.2 mm
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Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94 (Housing)	V2 (Housing)

Environmental and real-life conditions

Ambient conditions

Degree of protection (Relay base)	IP20 (Relay base)
Degree of protection (Relay)	RT I (Relay)
Ambient temperature (operation)	-40 °C ... 40 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

Approvals

Corrosive gas test

Identification	ISA-S71.04. G3 Harsh Group
	EN 60068-2-60

Standards and regulations

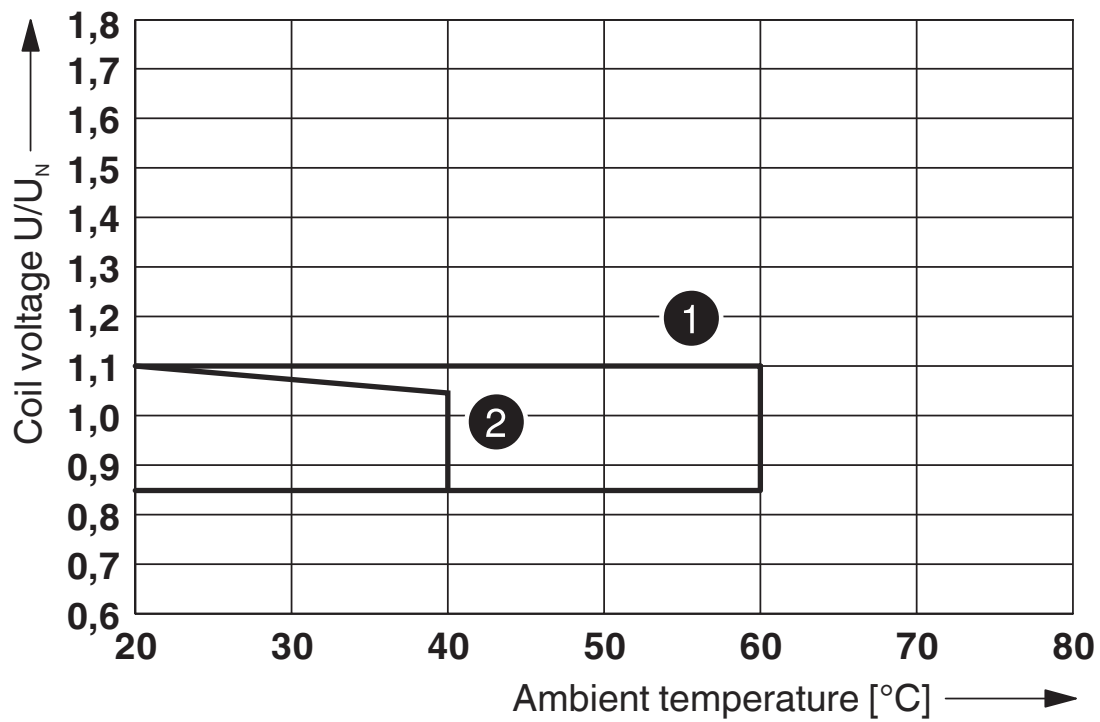
Standards/regulations	IEC 60947-5-1
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Mounting

Mounting type	DIN rail mounting
Assembly note	in rows with zero spacing
Mounting position	any

Drawings

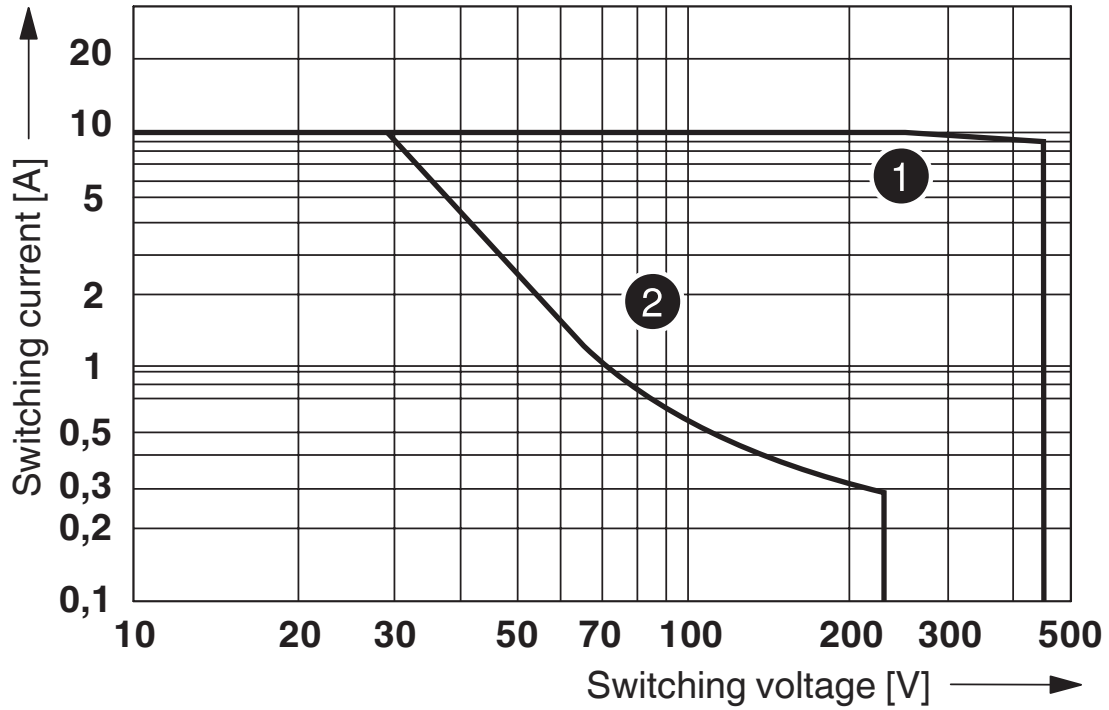
Diagram



- ① DC coil (observe contact derating)
- ② AC coil (observe contact derating)

Operating voltage range

Diagram



- ① AC, ohmic load
- ② DC, ohmic load

Interrupting rating

Diagram



Contact derating

Diagram



① 250 V AC, Ohmic load

Electrical service life

Diagram



Service life reduction factor



Permissible humidity for operation and storage.

The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures $\leq 0^\circ\text{C}$ must be prevented

Area B: Condensation at ambient temperatures $> 0^\circ\text{C}$ must be prevented

On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature $\leq 25^\circ\text{C}$.

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Circuit diagram



AC coils

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2903277>



CSA

Approval ID: 76787



CCC

Approval ID: 2024010303656843

DNV

Approval ID: TAA000018V

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Classifications

ECLASS

ECLASS-13.0	27371601
ECLASS-15.0	27371601

ETIM

ETIM 10.0	EC001437
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UNSPSC

UNSPSC 21.0	39122300
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	91955b10-f53b-4c3b-9758-aedcd8a8b184

EF3.1 Climate Change

CO2e kg	2.713 kg CO2e
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