

RIF-1-RSC-LV-120AC/1X21 - Relay module



2903356

<https://www.phoenixcontact.com/us/products/2903356>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Preassembled relay module with screw connection, consisting of: relay base, power contact relay, plug-in display/interference suppression module, and retaining bracket. Contact switching type: 1 changeover contact. 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	2903356
Packing unit	10 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Sales key	C465
Product key	DK6519
GTIN	4046356732895
Weight per piece (including packing)	70.3 g
Weight per piece (excluding packing)	70.3 g
Customs tariff number	85364900
Country of origin	CN

RIF-1-RSC-LV-120AC/1X21 - Relay module



2903356

<https://www.phoenixcontact.com/us/products/2903356>

Set consists of

RIF-1-BSC/2X21 - Relay base

2900930

<https://www.phoenixcontact.com/us/products/2900930>

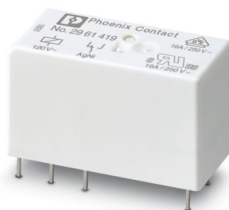


RIF-1... relay base, for miniature power relay with 1 or 2 changeover contacts or identical solid-state relays, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

REL-MR-120AC/21HC - Single relay

2961419

<https://www.phoenixcontact.com/us/products/2961419>



Plug-in miniature power relay, with power contact for high continuous currents, 1 changeover contact, input voltage 120 V AC

RIF-1-RSC-LV-120AC/1X21 - Relay module

2903356

<https://www.phoenixcontact.com/us/products/2903356>



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 ± 20 %

RIF-RH-1 - Retaining bracket

2900953

<https://www.phoenixcontact.com/us/products/2900953>



Relay retaining bracket, with ejector function and holder for marking material, suitable for RIF-1 relay base, for 16 mm tall miniature power relay and solid-state relay

Technical data

Notes

Notes on operation	FBS 2-6... plug-in bridge for the input side (A2) and FBS-2-8... plug-in bridge for the output side (11/21)
--------------------	---

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	Safe isolation between input and output
	Basic insulation between the changeover contacts
Overvoltage category	III
Pollution degree	2

Data management status

Date of last data management	12.09.2025
------------------------------	------------

Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	0.96 W
Test voltage (Winding/contact)	4 kV _{rms} (50 Hz, 1 min., winding/contact)
Rated insulation voltage	250 V AC
Rated surge voltage	6 kV (Input/output)
	4 kV (between the changeover contacts)

Input data

Coil side

Nominal input voltage U_N	120 V AC
Input voltage range	96 V AC ... 138 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	8 mA
Typical response time	3 ms ... 12 ms
Typical release time range	3 ms ... 20 ms
Coil voltage	120 V AC
Protective circuit	Varistor
Operating voltage display	Yellow LED

RIF-1-RSC-LV-120AC/1X21 - Relay module



2903356

<https://www.phoenixcontact.com/us/products/2903356>

Output data

Switching

Contact switching type	1 changeover contact
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	12 V (10 mA)
Limiting continuous current	10 A (see diagram)
Maximum inrush current	25 A (20 ms, N/O contacts)
Min. switching current	10 mA (12 V)
Interrupting rating (ohmic load) max.	240 W (24 V DC) 58 W (48 V DC) 48 W (60 V DC) 50 W (110 V DC) 80 W (220 V DC) 2500 VA (250 V AC)
Utilization category CB Scheme (IEC 60947-5-1)	AC15, 1.5 A/240 V (N/O contact) AC15, 3 A/250 V (N/C contact) DC13, 2 A/24 V (N/C contact) DC13, 0.2 A/250 V (N/O contact)

Connection data

Connection method	Screw connection
Stripping length	8 mm
Conductor cross-section rigid	0.5 mm ² ... 4 mm ²
Conductor cross-section rigid (2 conductors with same cross section)	0.5 mm ² ... 2.5 mm ²
Conductor cross-section flexible	0.5 mm ² ... 4 mm ² 0.5 mm ² ... 4 mm ² (Ferrule with plastic sleeve)
Conductor cross-section flexible (2 conductors with same cross section)	0.5 mm ² ... 2.5 mm ² 0.5 mm ² ... 1.5 mm ² (TWIN ferrule with plastic sleeve)
Conductor cross-section AWG	20 ... 10 (solid) 20 ... 12 (flexible)
Tightening torque	0.5 Nm ... 0.6 Nm

Dimensions

Item dimensions

Width	16 mm
Height	90 mm
Depth	75 mm

Material specifications

Color	gray (RAL 7042)
-------	-----------------

RIF-1-RSC-LV-120AC/1X21 - Relay module



2903356

<https://www.phoenixcontact.com/us/products/2903356>

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 III (Relay)
Ambient temperature (operation)	-40 °C ... 50 °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
-----------------------	---------------

Mounting

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

Drawings

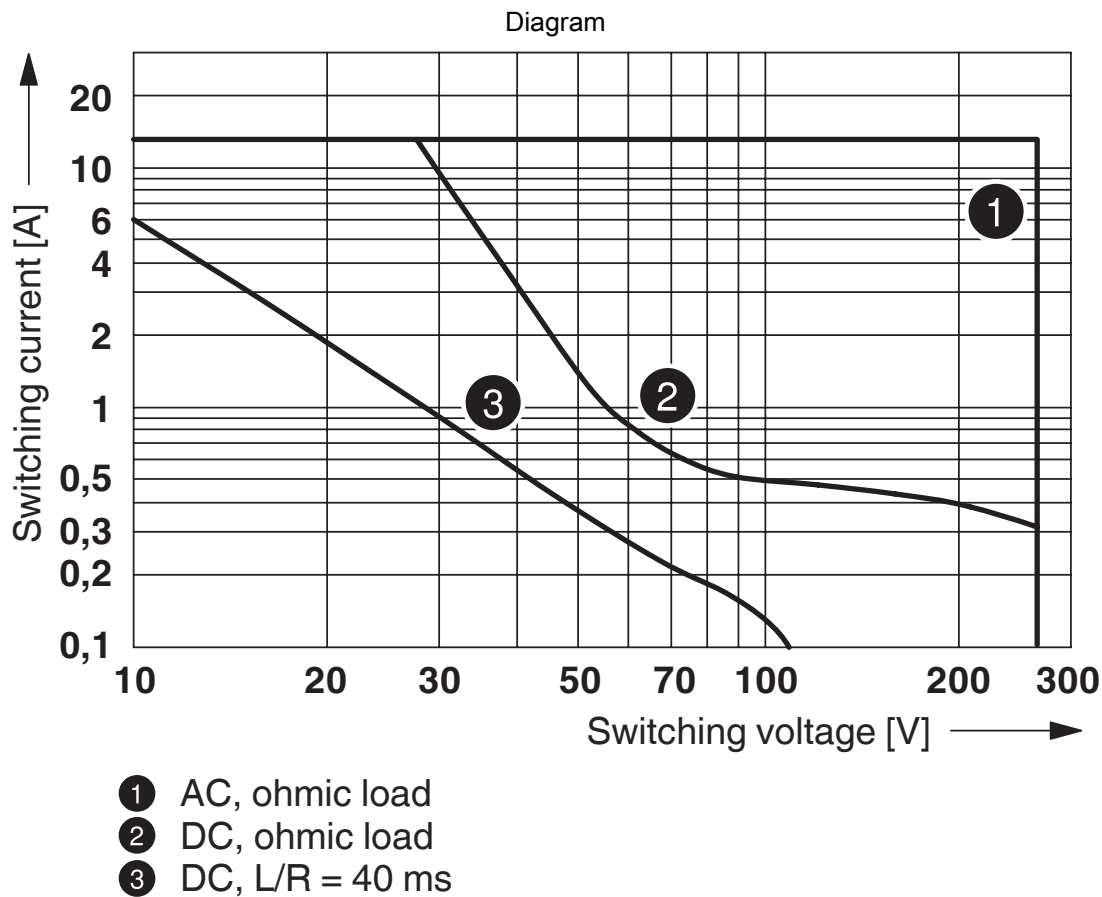
Diagram



① DC coils

② AC coils

Operating voltage range

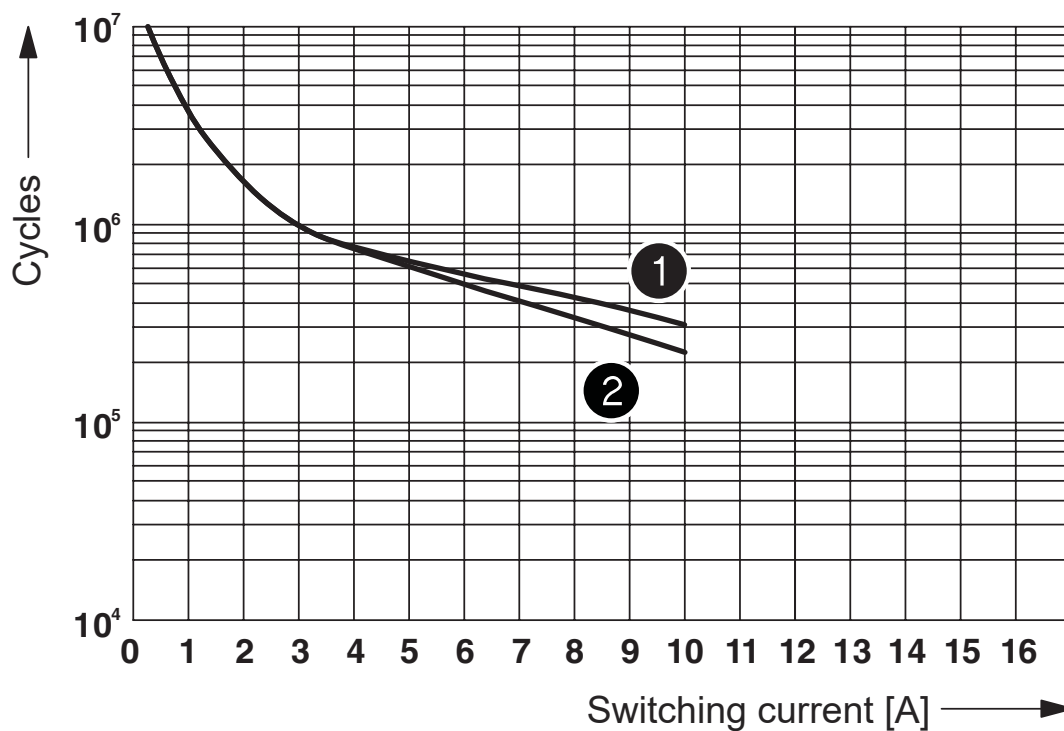


Interrupting rating



Contact derating

Diagram



- ① 250 V AC, ohmic load (DC coils)
- ② 250 V AC, ohmic load (AC coils)

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 $\leq 25^\circ\text{C}$.

RIF-1-RSC-LV-120AC/1X21 - Relay module

2903356

<https://www.phoenixcontact.com/us/products/2903356>

Circuit diagram



AC coils

RIF-1-RSC-LV-120AC/1X21 - Relay module



2903356

<https://www.phoenixcontact.com/us/products/2903356>

Classifications

ECLASS

ECLASS-13.0

27371601

ETIM

ETIM 9.0

EC001437

UNSPSC

UNSPSC 21.0

39122300

RIF-1-RSC-LV-120AC/1X21 - Relay module



2903356

<https://www.phoenixcontact.com/us/products/2903356>

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)
-------------------------------------	----------------------

Phoenix Contact 2025 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com