

RIF-1-RPT-LDP-24DC/1X21MS - Relay Module



2905289

<https://www.phoenixcontact.com/us/products/2905289>

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Preassembled relay module with Push-in connection, consisting of: relay base, relay retaining bracket, and power contact relay with test button, integrated status LED, and freewheeling diode. Contact switching type: 1 changeover contact. Input voltage: 24 V DC

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	2905289
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C465
Product key	CK6529
Catalog page	Page 330 (C-5-2019)
GTIN	4046356945448
Weight per piece (including packing)	68.153 g
Weight per piece (excluding packing)	63.23 g
Customs tariff number	85364110
Country of origin	CN

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Set consists of

RIF-1-BPT/2X21 - Relay base

2900931

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

REL-MR- 24DC/21HC/MS - Single relay

2987888

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Plug-in miniature relay, with power contact, 1 changeover contact, test button, mechanical switching position indicator, status LED, freewheeling diode, polarity A1+, A2-, input voltage 24 V DC

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RIF-RH-1-H - Retaining bracket

2904468

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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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Technical data

Product properties

Product type	Relay Module
Product family	RIFLINE complete
Application	Universal
	Palm switch
Operating mode	100% operating factor
Mechanical service life	approx. 5×10^6 cycles

Insulation characteristics

Insulation	Safe isolation between input and output
	Basic insulation between the changeover contacts

Insulation characteristics

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

Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	0.43 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	24 V DC
Input voltage range	19.2 V DC ... 30 V DC (20 °C)
Input voltage range in reference to U_N	see diagram
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at U_N	18 mA
Typical response time	9 ms
Typical release time	10 ms
Coil voltage	24 V DC
Protective circuit	Freewheeling diode
Operating voltage display	Yellow LED

Output data

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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	11 A (see diagram)
Maximum inrush current	24 A (20 ms, N/O contacts)
Min. switching current	10 mA (12 V)
Interrupting rating (ohmic load) max.	264 W (24 V DC)
	62 W (48 V DC)
	48 W (60 V DC)
	52 W (110 V DC)
	66 W (220 V DC)
	2500 VA (250 V AC)
Switching capacity min.	120 mW
Utilization category CB Scheme (IEC 60947-5-1)	AC15, 3 A/250 V (N/O contact)
	DC13, 2 A/24 V (N/O contact)

Connection data

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)

Dimensions

Drill hole

Diameter	3.2 mm
Width	16 mm
Height	96 mm
Depth	75 mm

Material specifications

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

Environmental and real-life conditions

Ambient conditions

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Degree of protection (Relay base)	IP20 (Relay base)
Degree of protection (Relay)	RT II (Relay)
Ambient temperature (operation)	-40 °C ... 60 °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

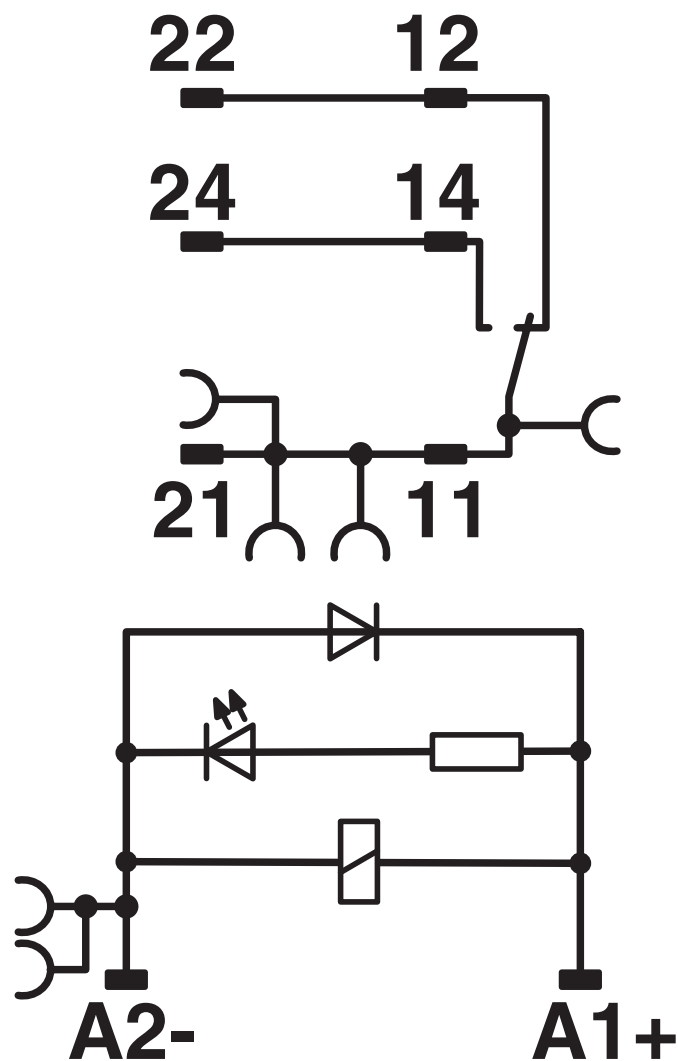
Standards/regulations	IEC 60947-5-1
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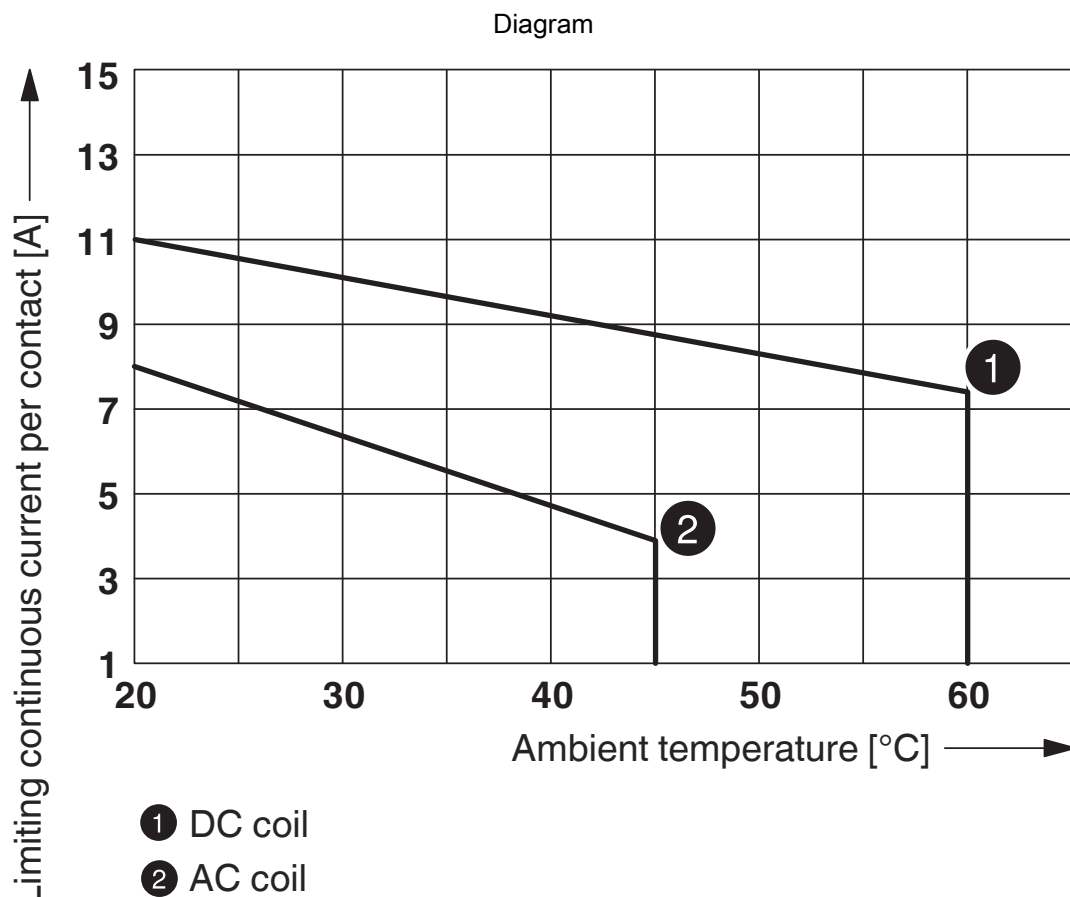
Mounting

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

Drawings

Circuit diagram





Contact derating



Permissible humidity for operation and storage.

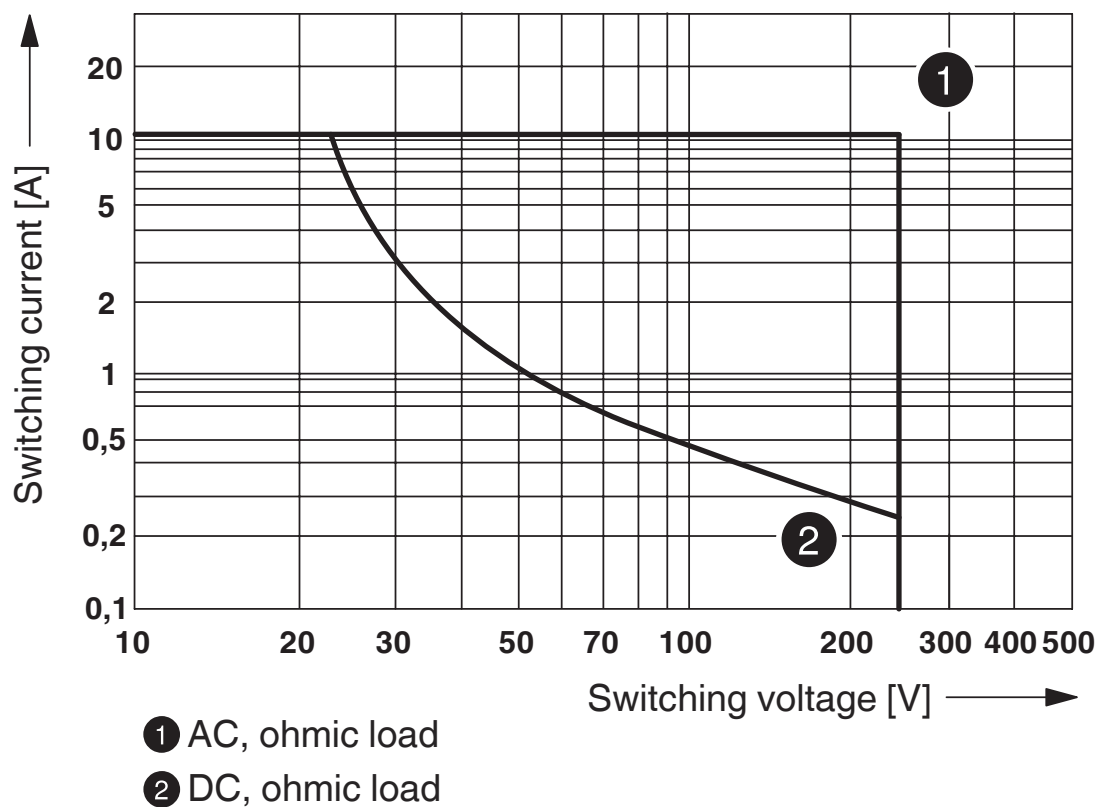
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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

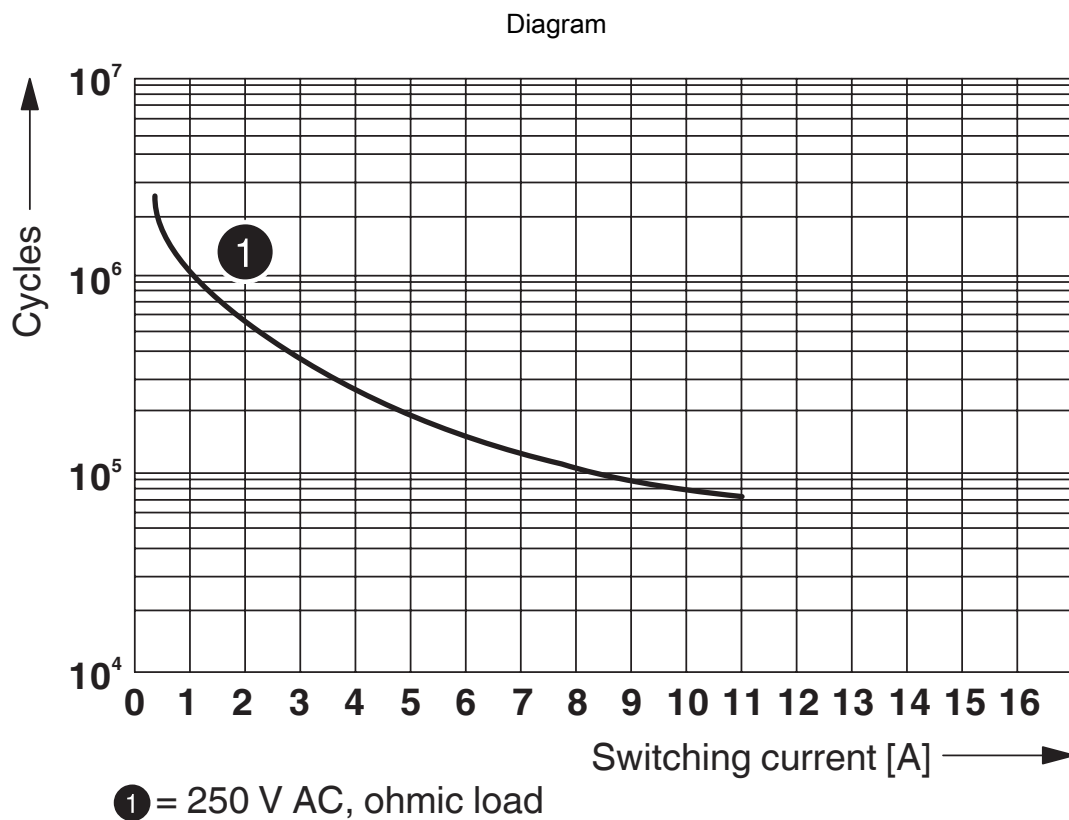
Area B: Condensation at ambient temperatures $> 0^{\circ}\text{C}$ must be prevented

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

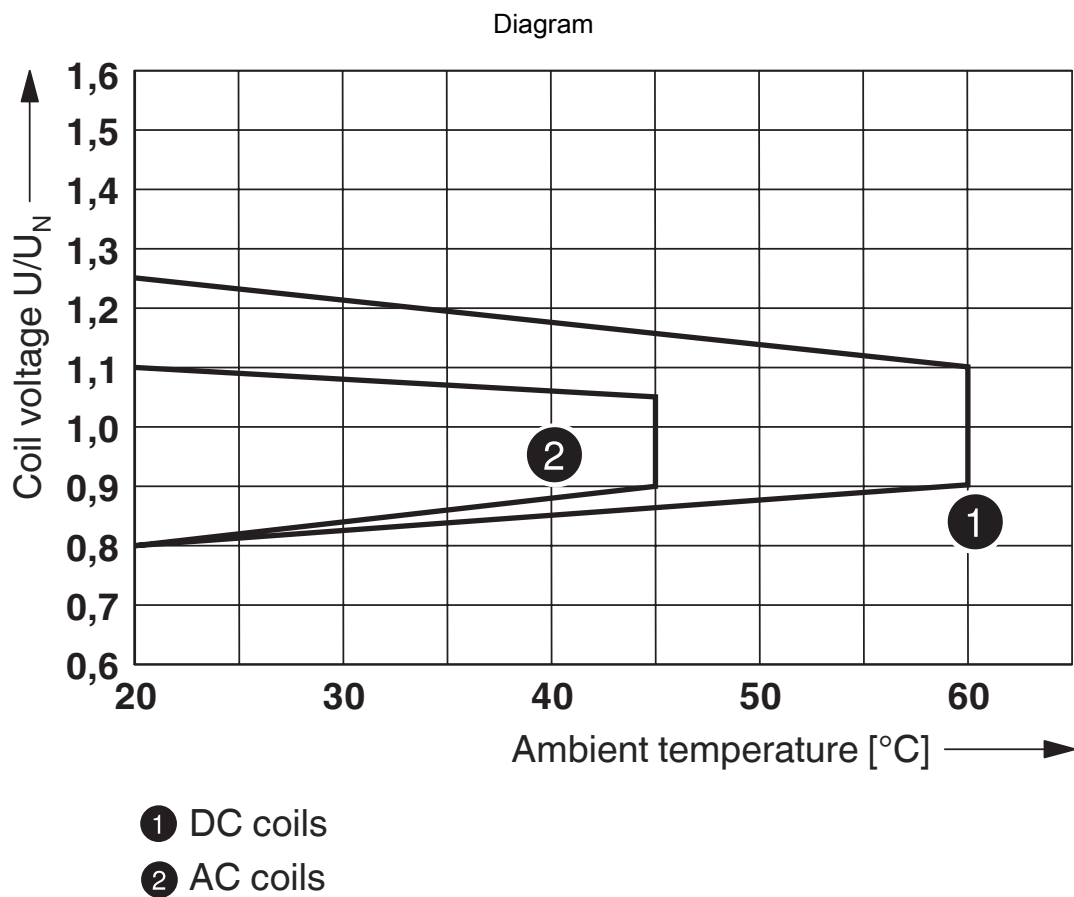
Diagram



Interrupting rating

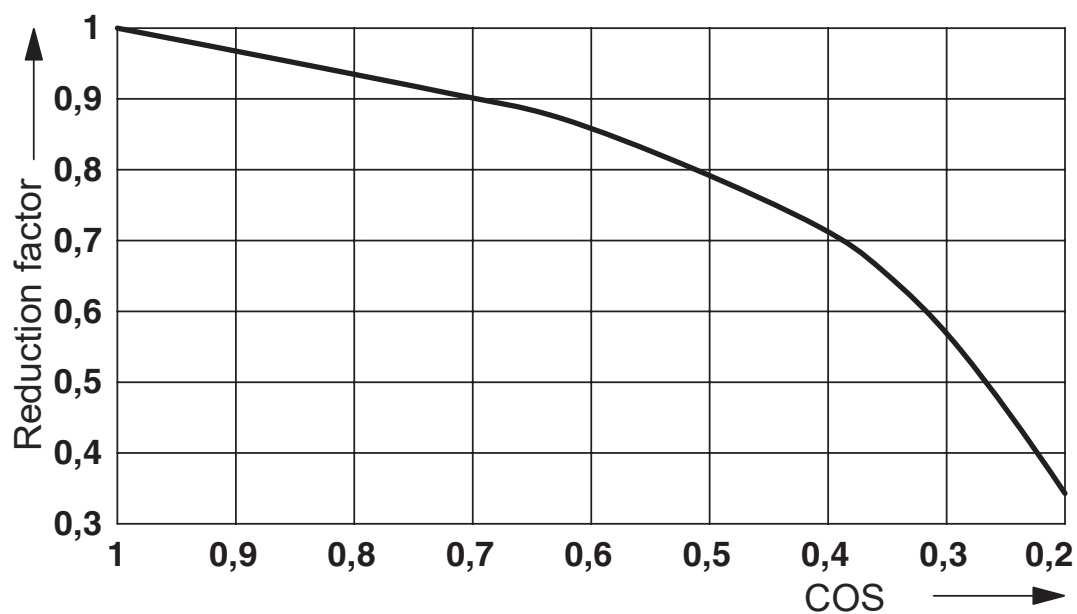


Electrical service life



Operating voltage range

Diagram



Service life reduction factor

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Approvals

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EAC

Approval ID: TR_TS_D_00573_c



DNV GL

Approval ID: TAA000018V

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Classifications

ECLASS

ECLASS-11.0	27371601
ECLASS-12.0	27371601
ECLASS-13.0	27371601

ETIM

ETIM 9.0	EC001437
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UNSPSC

UNSPSC 21.0	39122300
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Environmental product compliance

China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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