

REL-IR-BL/L- 12DC/2X21 - Single relay



1109547

<https://www.phoenixcontact.com/in/products/1109547>

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Plug-in industrial relay in basic design with power contacts, 2 changeover contacts, test button, status LED, mechanical switch position indicator, polarity A1+, A2-, input voltage: 12 V DC

Commercial data

Item number	1109547
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	CK6
Product key	CKF943
GTIN	4063151021627
Weight per piece (including packing)	30.55 g
Weight per piece (excluding packing)	29.22 g
Customs tariff number	85364900
Country of origin	AT

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Technical data

Notes

Notes on operation	Do not connect adjacent channels to SELV/ PELV and voltages dangerous to the touch.
Notes on operation	The outputs are not suitable for switching different outer conductors.
Notes on operation	Do not use to separate SELV / PELV circuits from other circuits, because safe isolation is not guaranteed.

Product properties

Product type	Single relay
Operating mode	100% operating factor
Mechanical service life	3x 10 ⁷ cycles

Data management status

Date of last data management	18.01.2024
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Insulation characteristics

Insulation	Basic insulation
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Insulation characteristics: Air clearances and creepage distances between coil and contact side

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	2

Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	0.76 W
Test voltage (Winding/contact)	2.5 kV _{rms} (50 Hz, 1 min., winding/contact)
Test voltage (Changeover contact/changeover contact)	2.5 kV _{rms} (50 Hz, 1 min., changeover contact/changeover contact)

Air clearances and creepage distances between coil and contact side

Rated insulation voltage	250 V AC
Rated surge voltage	5 kV

Input data

Coil side

Nominal input voltage U _N	12 V DC
Input voltage range	9.6 V DC ... 20.4 V DC (20 °C)
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at U _N	63 mA
Typical response time	15 ms
Typical release time	10 ms

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Coil voltage	12 V DC
Status display	Yellow LED
Coil resistance	192 $\Omega \pm 10 \%$

Output data

Switching

Contact switching type	2 changeover contacts
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	12 A
Maximum inrush current	24 A (20 ms, N/O contacts)
Min. switching current	10 mA (12 V)
Interrupting rating (ohmic load) max.	288 W (24 V DC)
	130 W (48 V DC)
	90 W (60 V DC)
	66 W (110 V DC)
	88 W (220 V DC)
Switching capacity min.	3000 VA (250 V AC)
	120 mW

Connection data

Connection method	Plug-in connection
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Dimensions

Width	22.5 mm
Height	28 mm
Depth	35.5 mm

Environmental and real-life conditions

Ambient conditions

Degree of protection	RT II
Degree of protection (Installation location)	$\geq$ IP54 (Installation location)
Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Altitude	$\leq$ 2000 m

Standards and regulations

Air clearances and creepage distances between coil and contact side

Standards/regulations	EN 61810-1
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Mounting

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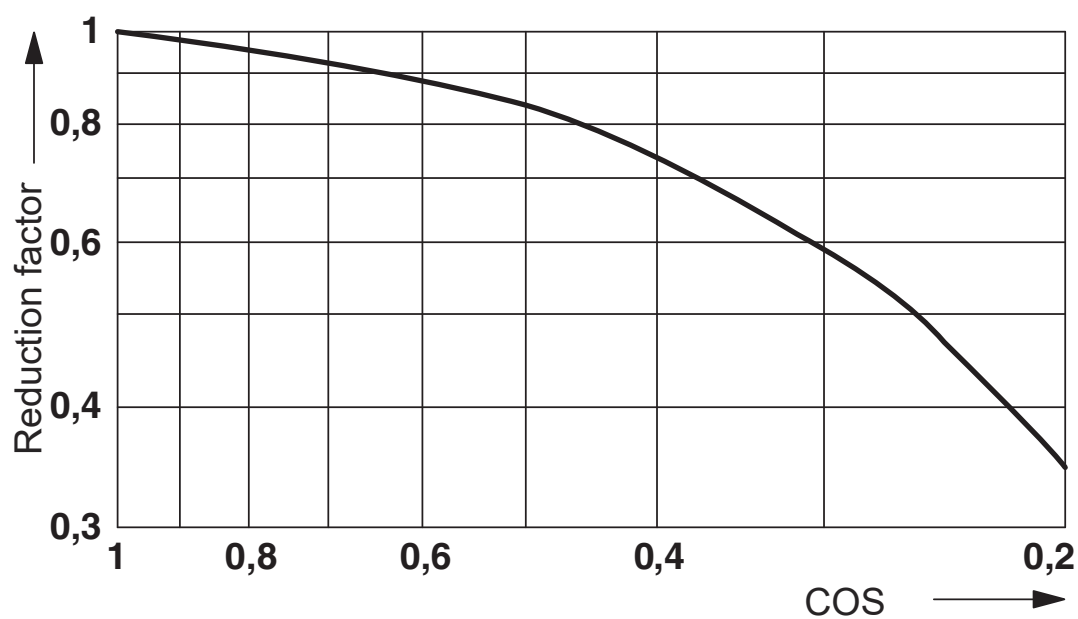
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Mounting type	Plug-in mounting
Assembly note	in rows with zero spacing
Mounting position	any

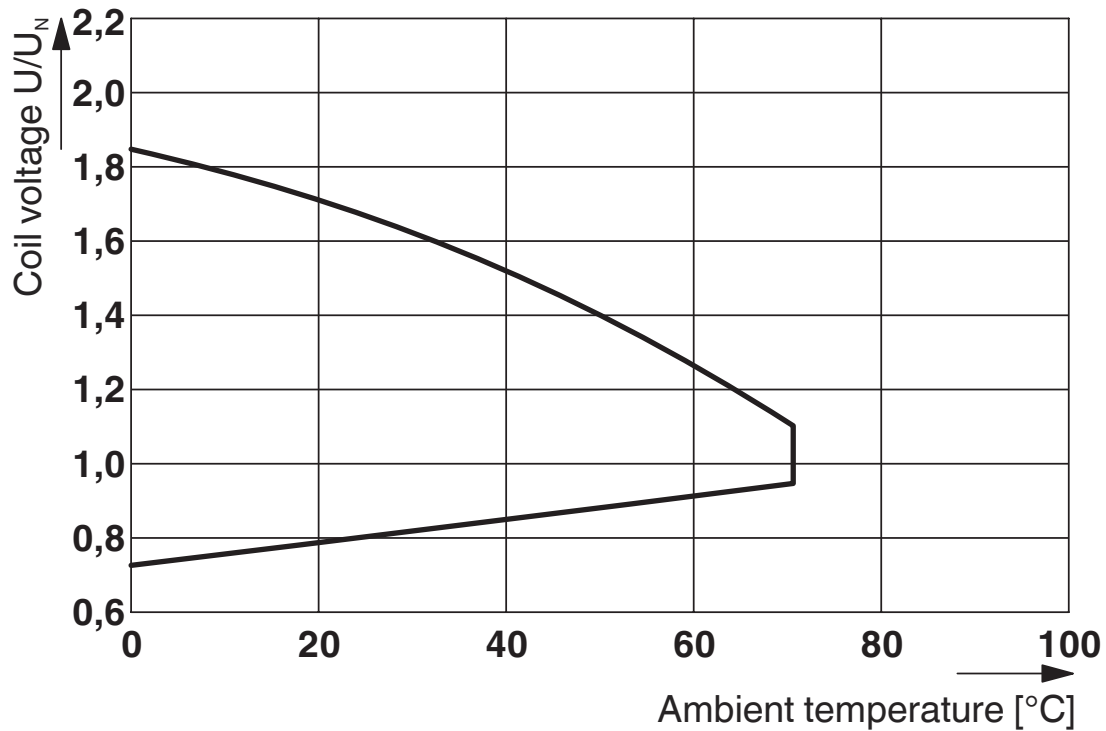
Drawings

Diagram



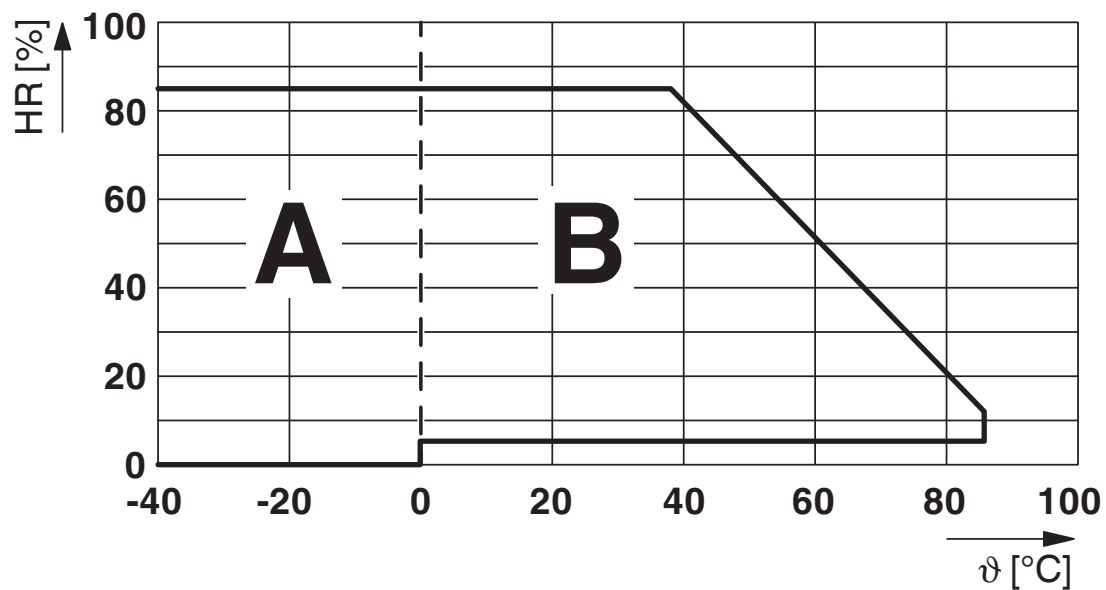
Service life reduction factor

Diagram



Operating voltage range

Diagram



Permissible humidity for operation and storage.

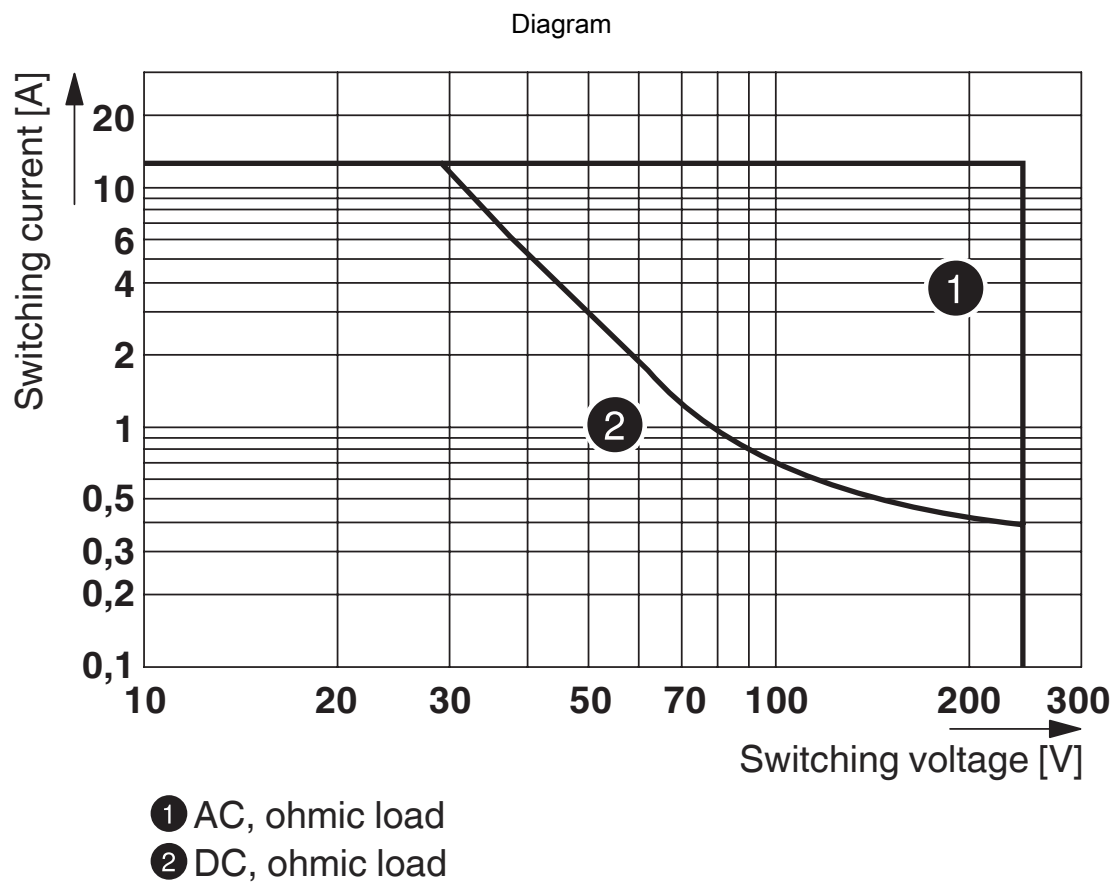
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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

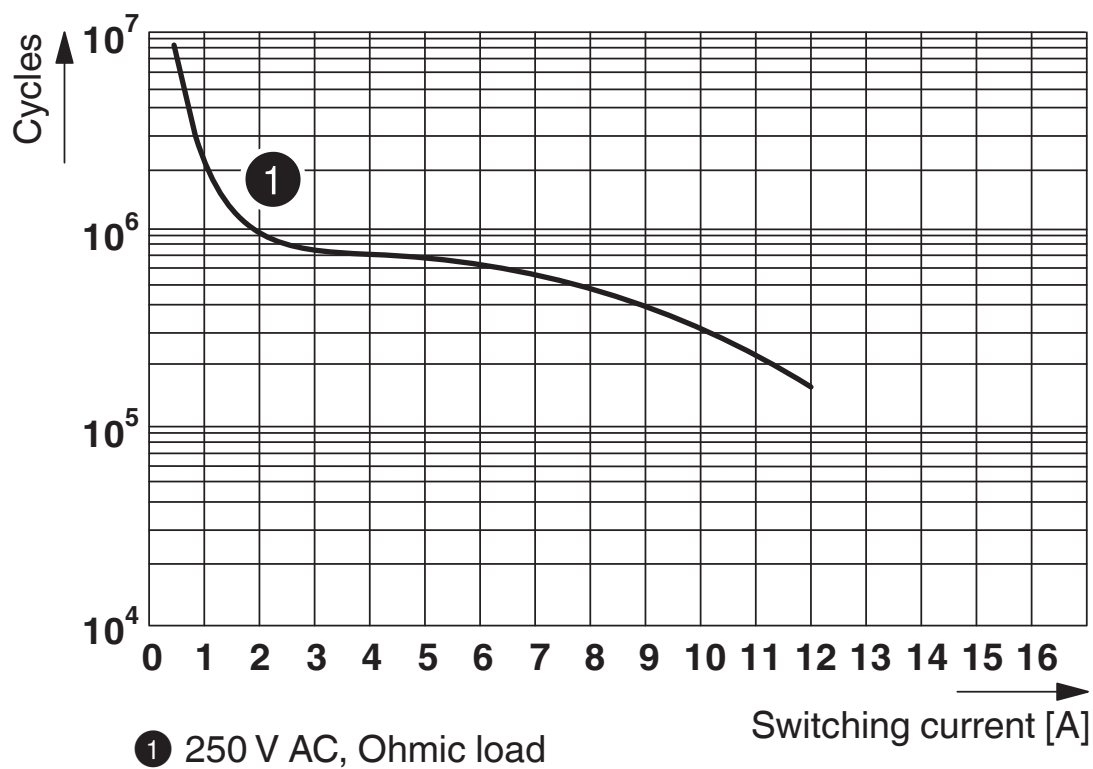
On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature $\leq 25^{\circ}\text{C}$.

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Interrupting rating

Diagram



Electrical service life

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Approvals

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cUL Recognized
Approval ID: FILE E 228652



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Classifications

ECLASS

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

ETIM

ETIM 8.0	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, No exemptions
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China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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Mandatory accessories

ECOR-2-BSC2-RT/2X21 - Relay base

2908341

<https://www.phoenixcontact.com/in/products/2908341>

ECOR-2 relay base, for industrial relays with two changeover contacts, bolt connection, for mounting on NS 35/7,5



ECOR-2-BSC2-RT/4X21 - Relay base

2908214

<https://www.phoenixcontact.com/in/products/2908214>

ECOR-2 relay base, for industrial relays with four changeover contacts, bolt connection, for mounting on NS 35/7,5



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ECOR-2-BSC3/4X21 - Relay base

2907521

<https://www.phoenixcontact.com/in/products/2907521>



ECOR-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

ECOR-2-BSC2/4X21 - Relay base

1089994

<https://www.phoenixcontact.com/in/products/1089994>



ECOR-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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