

REL-IR-BL/L- 48DC/4X21 - Single relay



1109558

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Plug-in industrial relay in basic design with power contacts, 4 changeover contacts, test button, status LED, mechanical switch position indicator, polarity A1+, A2-, input voltage: 48 V DC

Commercial data

Item number	1109558
Packing unit	10 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Sales key	DKF947
Product key	DKF947
GTIN	4063151021450
Weight per piece (including packing)	31.86 g
Weight per piece (excluding packing)	31 g
Customs tariff number	85364190
Country of origin	AT

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
Product family	ESSENTIAL edition
Operating mode	100% operating factor
Mechanical service life	3x 10 ⁷ cycles

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

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	2

Data management status

Date of last data management	01.04.2026
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Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	0.79 W
Test voltage (Winding/contact)	2.5 kV _{rms} (50 Hz, 1 min., winding/contact)
Test voltage (Changeover contact/changeover contact)	2 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	48 V DC
Input voltage range	38.4 V DC ... 93.6 V DC (20 °C)
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at U _N	16 mA
Typical response time	15 ms
Typical release time	10 ms
Coil voltage	48 V DC
Status display	LED (yellow)

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Coil resistance	3.1 k Ω \pm 10 %
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Output data

Switching

Contact switching type	4 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	6 A
Maximum inrush current	12 A (20 ms, N/O contacts)
Min. switching current	10 mA (12 V)
Interrupting rating (ohmic load) max.	144 W (24 V DC) 130 W (48 V DC) 90 W (60 V DC) 66 W (110 V DC) 88 W (220 V DC) 1500 VA (250 V AC)
Switching power min.	120 mW

Connection data

Connection method	Plug-in connection
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Dimensions

Item 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

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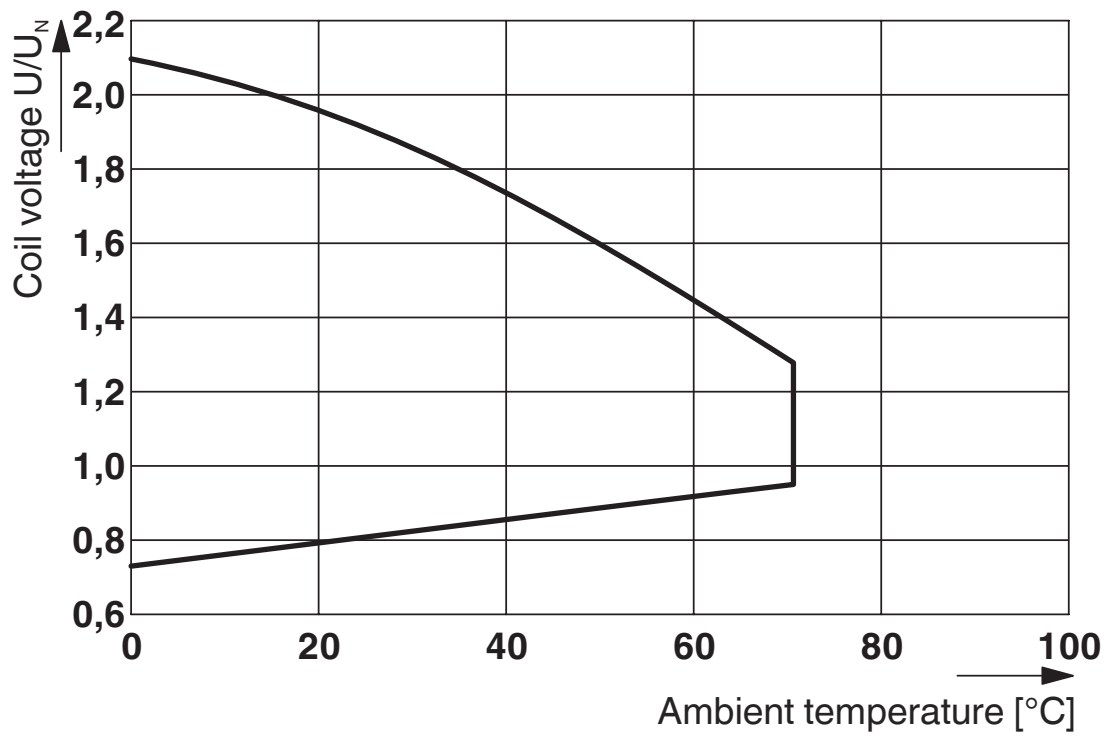
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Assembly note	in rows with zero spacing
Mounting position	any

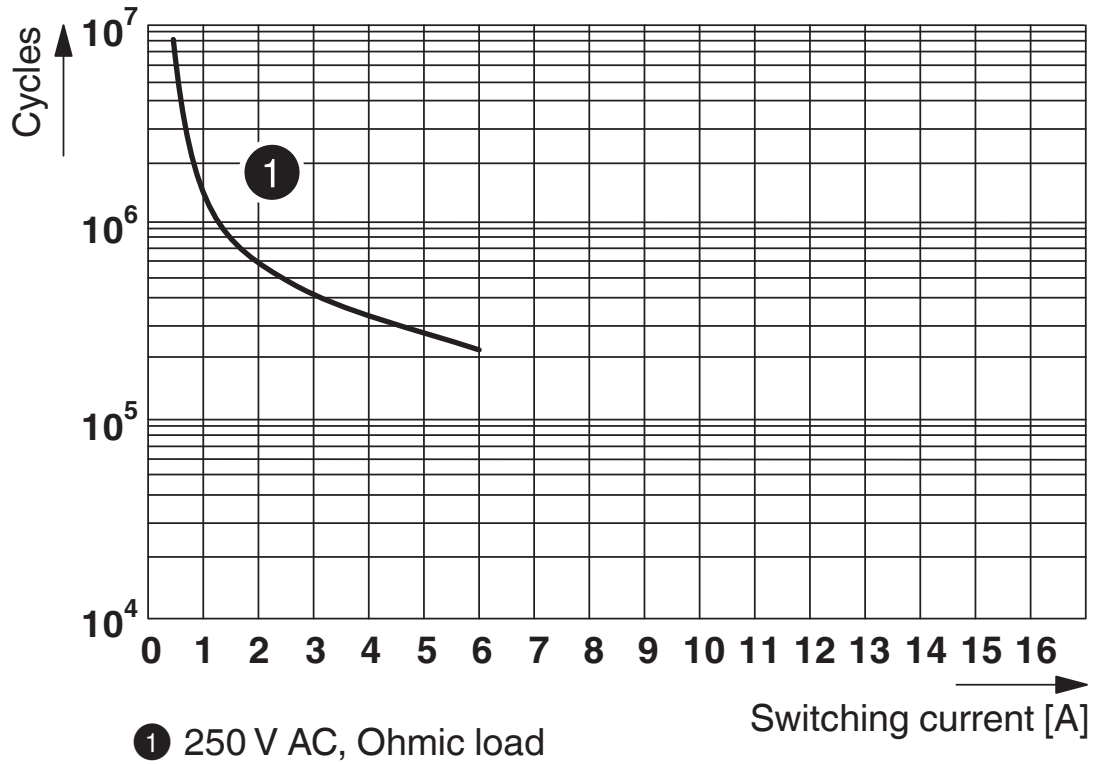
Drawings

Diagram



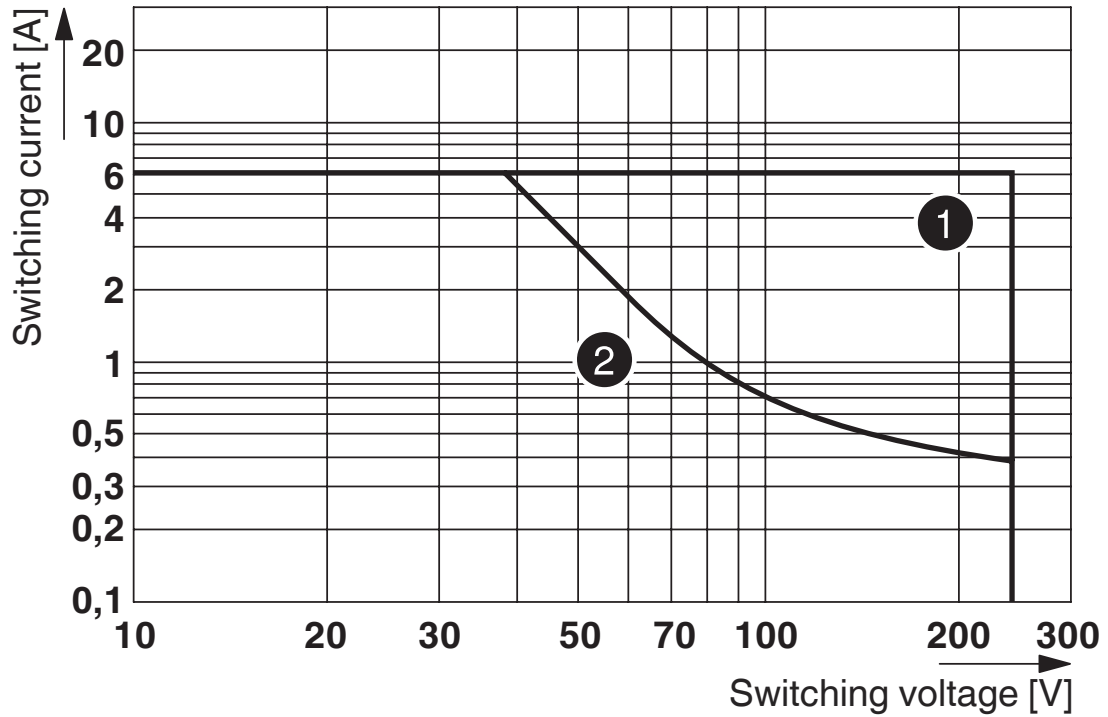
Operating voltage range

Diagram



Electrical service life

Diagram



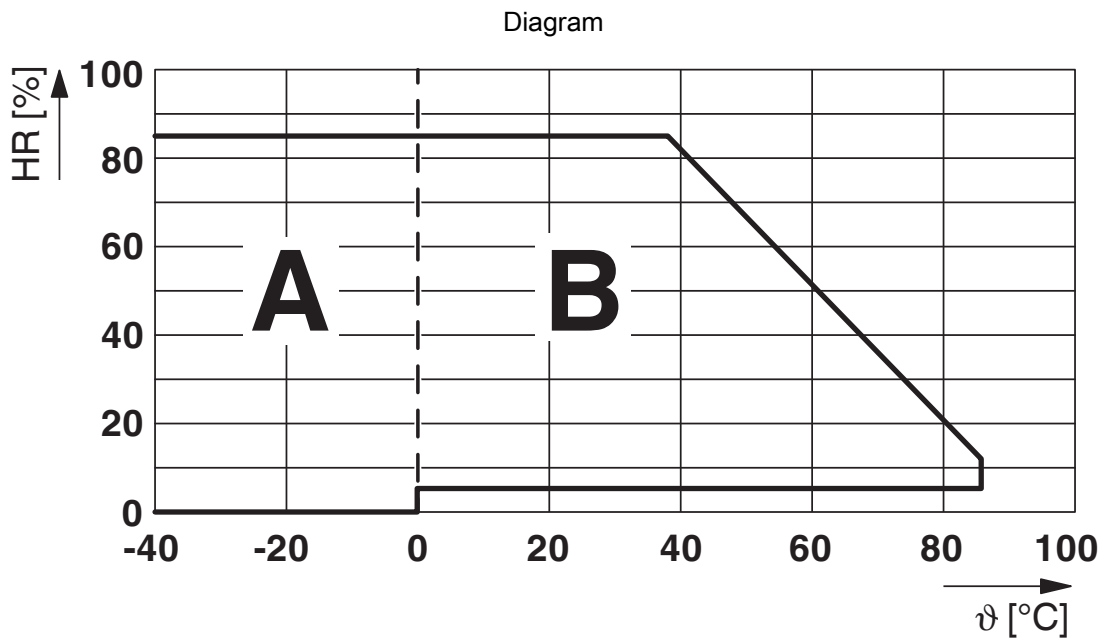
- ① AC, ohmic load
- ② DC, ohmic load

Interrupting rating

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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Approvals

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cUL Recognized
Approval ID: FILE E 228652



UL Recognized
Approval ID: FILE E 228652



VDE approval of drawings
Approval ID: 40058034

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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, 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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EF3.1 Climate Change

CO2e kg	0.224 kg CO2e
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