

REL-FO/LD-24DC/1X21MS - Single relay



1308302

<https://www.phoenixcontact.com/us/products/1308302>

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Plug-in miniature relay with mechanical switching position indicator, FASTON connection, 1 changeover contact, status display: Yellow LED, Freewheeling diode, Input voltage: 24 V DC

Commercial data

Item number	1308302
Packing unit	1 pc
Minimum order quantity	10 pc
Sales key	C460
Product key	CK6193
GTIN	4063151558819
Weight per piece (including packing)	27.66 g
Weight per piece (excluding packing)	27.66 g
Customs tariff number	85364190
Country of origin	CN

Technical data

Notes

General	Do not use to separate SELV/PELV circuits from other circuits, because safe isolation is not guaranteed. (applies to the optocoupler variants)
General	The system installer must ensure the touch protection of the product (at voltages > 25 V AC/60 V DC). The product is a built-in device without protection against direct contact.

Product properties

Product type	Single relay
Product family	ESSENTIAL edition
Operating mode	100% operating factor
Mechanical service life	approx. 5×10^7 cycles
Relay type	Electromechanical relay

Insulation characteristics: Air clearances and creepage distances between the power circuits

Insulation	Basic insulation
Overvoltage category	II
Pollution degree	3

Electrical properties

Maximum power dissipation for nominal condition	0.64 W
Test voltage (Winding/contact)	5 kV _{rms} (50 Hz, 1 min., winding/contact)
Test voltage ()	1 kV _{rms} (50 Hz, 1 min., open contact)

Air clearances and creepage distances between the power circuits

Rated insulation voltage	250 V AC
Rated surge voltage	2.5 kV

Input data

Coil side

Nominal input voltage U_N	24 V DC
Input voltage range	16.8 V DC ... 26.4 V DC
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at U_N	24 mA
Input power dissipation for U_N	0.58 W
Typical response time	9 ms
Typical release time	10 ms
Protective circuit	Freewheeling diode
Status display	Yellow LED
Coil resistance	1080 Ω \pm 10 %

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Output data

Switching

Contact switching type	1 changeover contact
Type of switch contact	Single contact
Contact material	AgSnO
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (100 mA)
Limiting continuous current	12 A
Maximum inrush current	24 A (20 ms, N/O contacts)
Inrush current, minimum	100 mA (5 V)
Interrupting rating (ohmic load) max.	288 W (24 V DC)
	360 W (30 V DC)
	3000 VA (250 V AC)

Connection data

Connection method	FASTON connection
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Dimensions

Width	13 mm
Height	31.1 mm
Depth	35 mm

Environmental and real-life conditions

Ambient conditions

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

Standards and regulations

Standards/regulations	IEC 61810-1
	IEC 60664-1

Air clearances and creepage distances between the power circuits

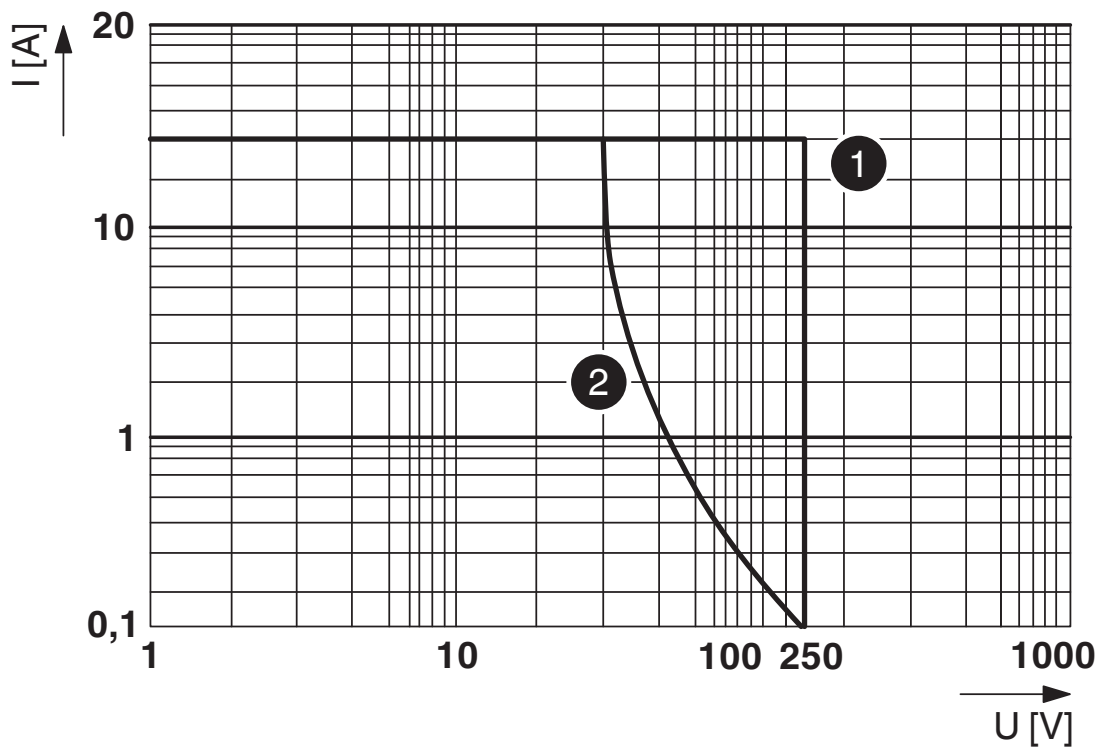
Standards/regulations	IEC 60664-1
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Mounting

Mounting position	any
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Drawings

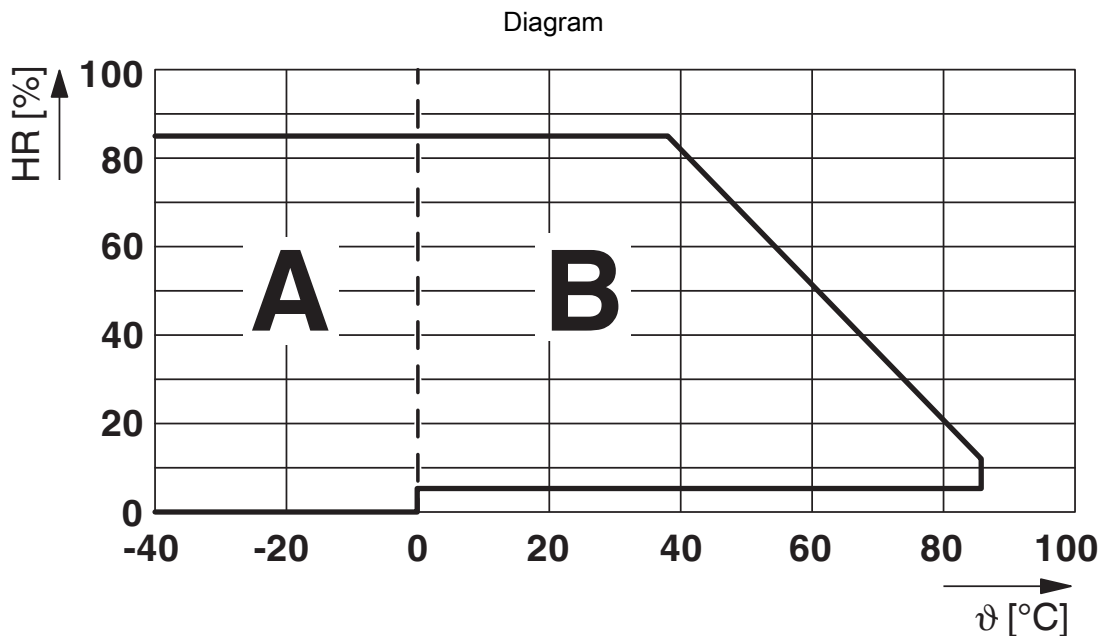
Diagram



Interrupting rating
1) AC, ohmic load
2) DC, ohmic load

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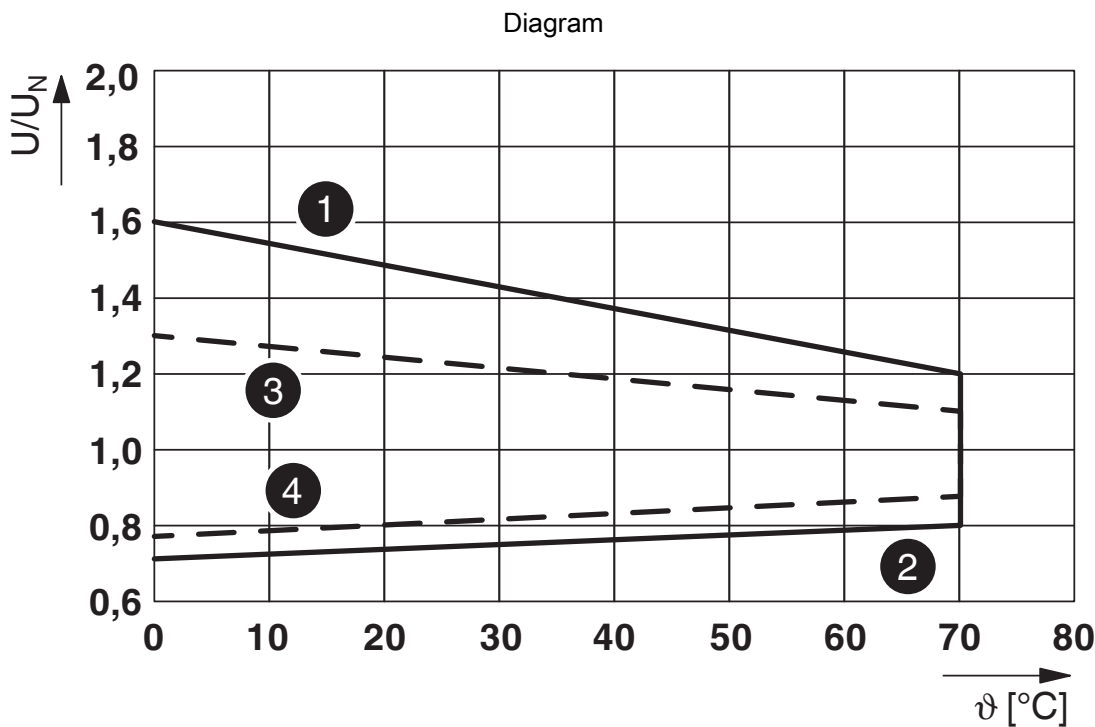
Permissible humidity for operation and storage.

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

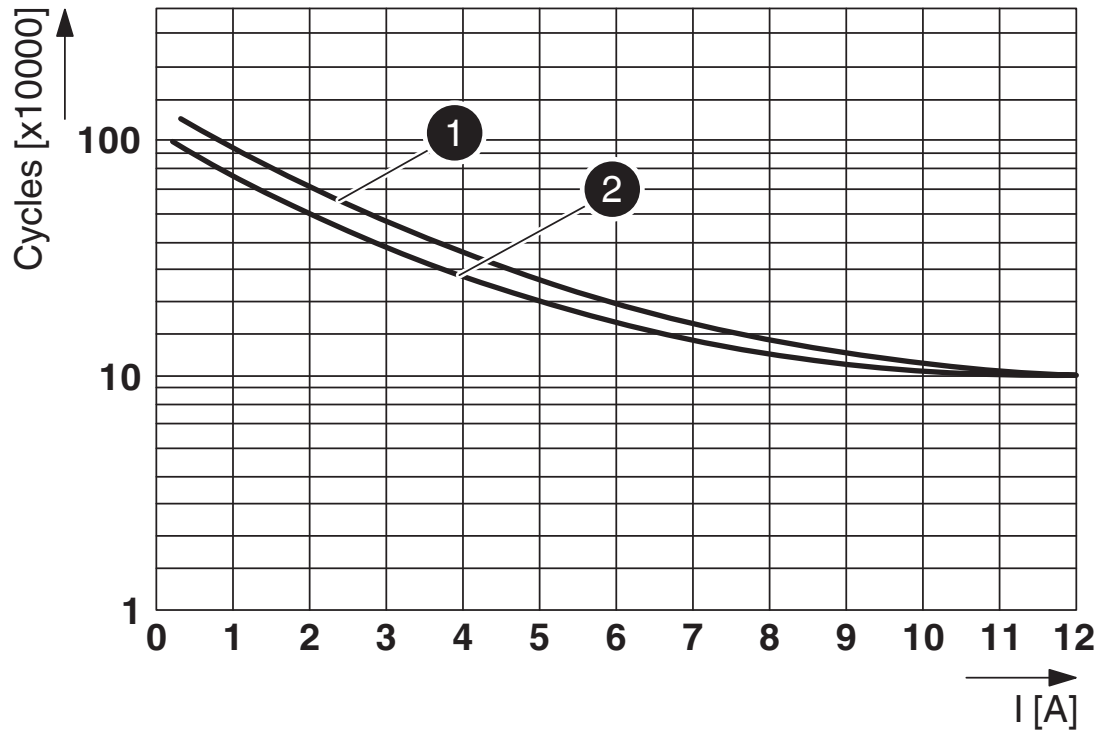


Operating voltage range

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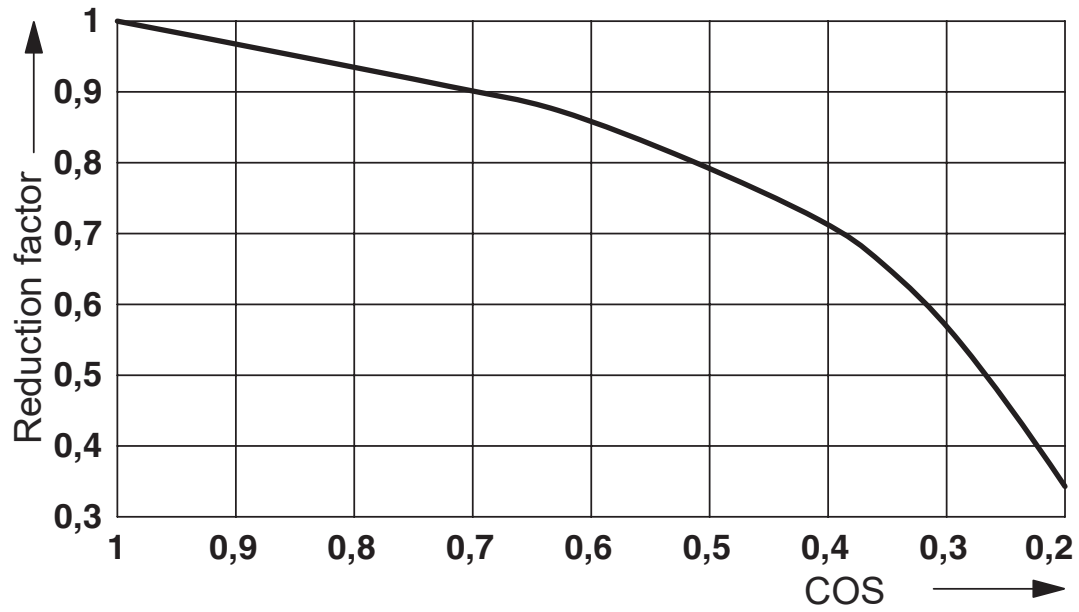
Diagram



Electrical service life

- 1) 30 V DC resistance load
- 2) 250 V AC resistance load

Diagram



Service life reduction factor with various cos phi

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1308302>



cUL Recognized

Approval ID: FILE E 172140



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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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Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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Mandatory accessories

ECOR-1-BSC2/FO/1X21 - Relay base

1308331

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ECOR-1 relay base, for FASTON relay, Fork-type cable lug, 1 changeover contact, Input voltage 230 V AC



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