

# REL-FO/L-110DC/1X21 - Single relay



1308299

<https://www.phoenixcontact.com/us/products/1308299>

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Plug-in miniature relay, FASTON connection, 1 changeover contact, status display: Yellow LED, Input voltage: 110 V DC

## Commercial data

Item number	1308299
Packing unit	1 pc
Minimum order quantity	10 pc
Sales key	C460
Product key	CK6193
GTIN	4063151558192
Weight per piece (including packing)	24.77 g
Weight per piece (excluding packing)	22.22 g
Customs tariff number	85364900
Country of origin	CN

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## 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. $5 \times 10^7$ 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	0.66 W
Test voltage (Winding/contact)	5 kV <sub>rms</sub> (50 Hz, 1 min., winding/contact)
Test voltage ()	1 kV <sub>rms</sub> (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 $U_N$	110 V DC
Input voltage range	77 V DC ... 121 V DC
Drive and function	monostable
Drive (polarity)	non-polarized
Typical input current at $U_N$	6 mA
Input power dissipation for $U_N$	0.66 W
Typical response time	9 ms
Typical release time	3 ms
Status display	Yellow LED
Coil resistance	18870 $\Omega$ $\pm$ 10 %

### Output data

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## 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	30 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
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### 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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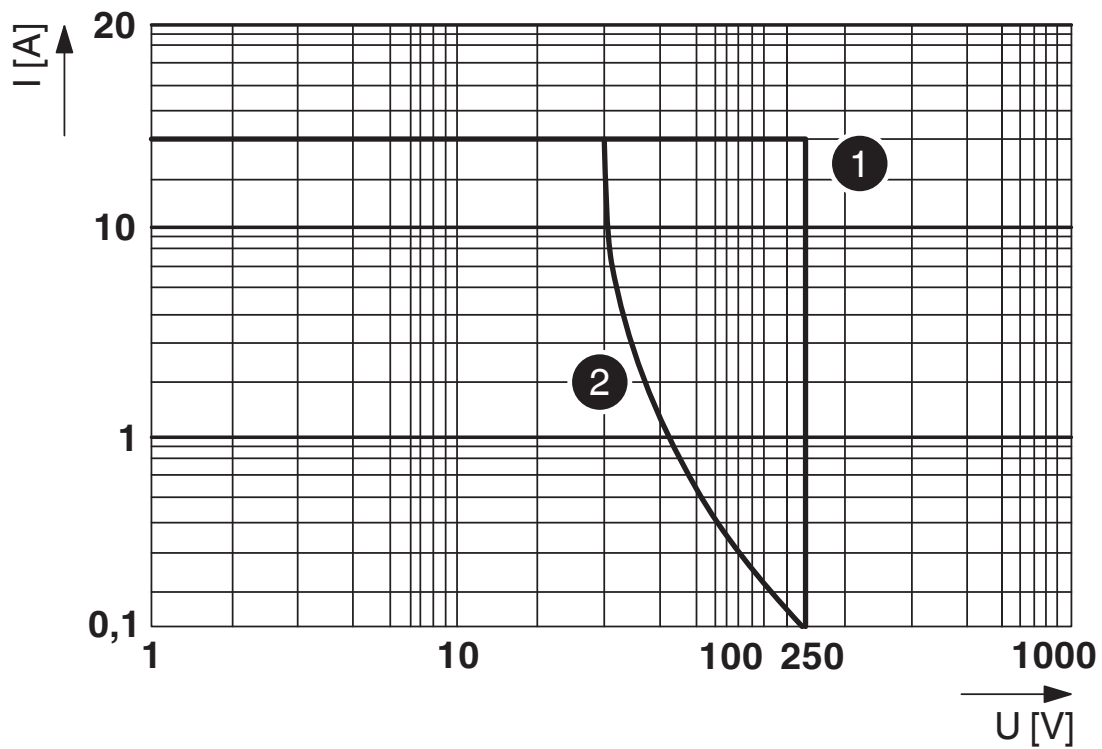


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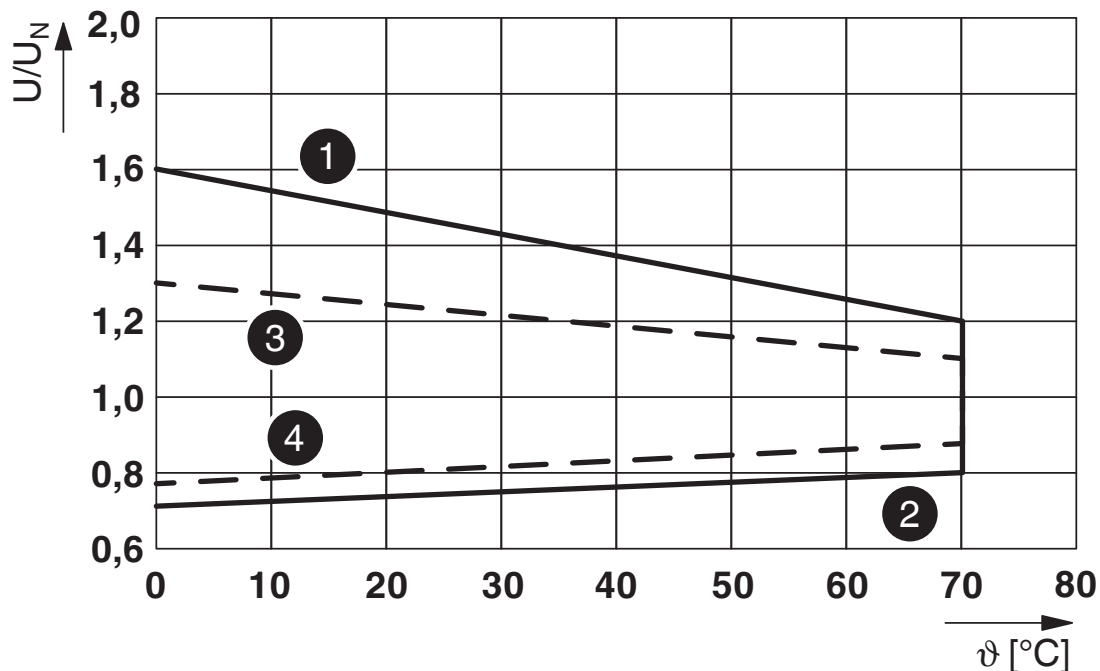
## Drawings

Diagram



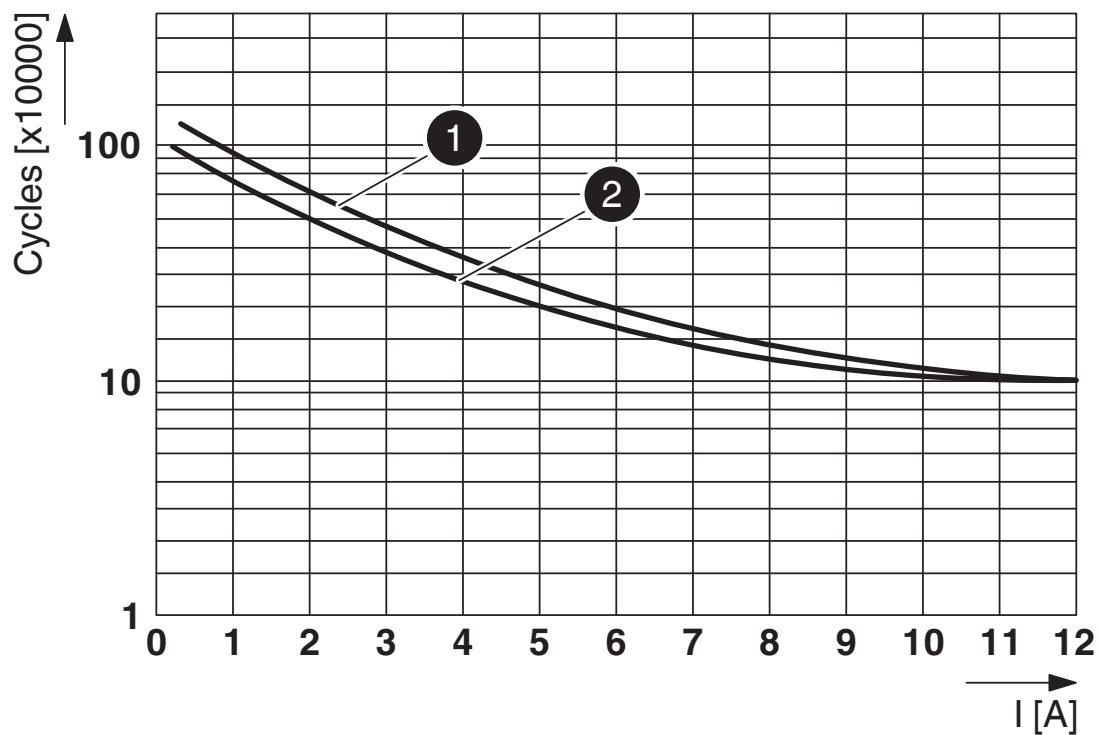
Interrupting rating  
1) AC, ohmic load  
2) DC, ohmic load

Diagram



Operating voltage range

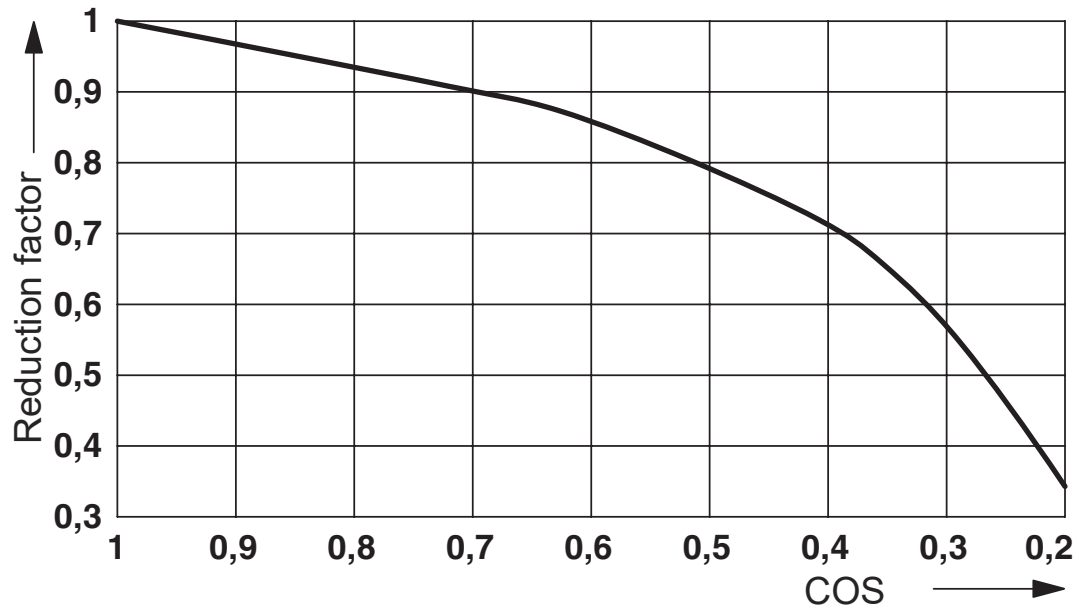
Diagram



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/1308299>



**cUL Recognized**

Approval ID: FILE E 172140



**UL Recognized**

Approval ID: FILE E 172140

**cULus Recognized**

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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

<https://www.phoenixcontact.com/us/products/1308331>

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



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