

# REL-FO/L-24DC/2X21 - Single relay



1308296

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Plug-in miniature relay, FASTON connection, 2 changeover contacts, status display: Yellow LED, Input voltage: 24 V DC

## Commercial data

Item number	1308296
Packing unit	1 pc
Minimum order quantity	10 pc
Sales key	C460
Product key	CK6193
GTIN	4063151558734
Weight per piece (including packing)	25 g
Weight per piece (excluding packing)	25 g
Customs tariff number	85364190
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 outputs are not suitable for switching different outer conductors.
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	0.58 W
Test voltage (Winding/contact)	5 kV <sub>rms</sub> (50 Hz, 1 min., winding/contact)
Test voltage (Changeover contact/changeover contact)	3 kV <sub>rms</sub> (50 Hz, 1 min., changeover contact/changeover 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 $U_N$	24 V DC
Input voltage range	16.8 V DC ... 26.4 V DC
Drive and function	monostable
Drive (polarity)	non-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	3 ms
Status display	Yellow LED

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Coil resistance	1080 $\Omega$ $\pm$ 10 %
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## Output data

### Switching

Contact switching type	2 changeover contacts
Type of switch contact	Single contact
Contact material	AgSnO
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (10 mA)
Limiting continuous current	8 A
Maximum inrush current	16 A (20 ms, N/O contacts)
Min. switching current	10 mA (5 V)
Interrupting rating (ohmic load) max.	192 W (24 V DC)
	240 W (30 V DC)
	2000 VA (250 V AC)

## Connection data

Connection method	FASTON connection
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## Dimensions

Width	13 mm
Height	31.1 mm
Depth	29 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	$\leq$ 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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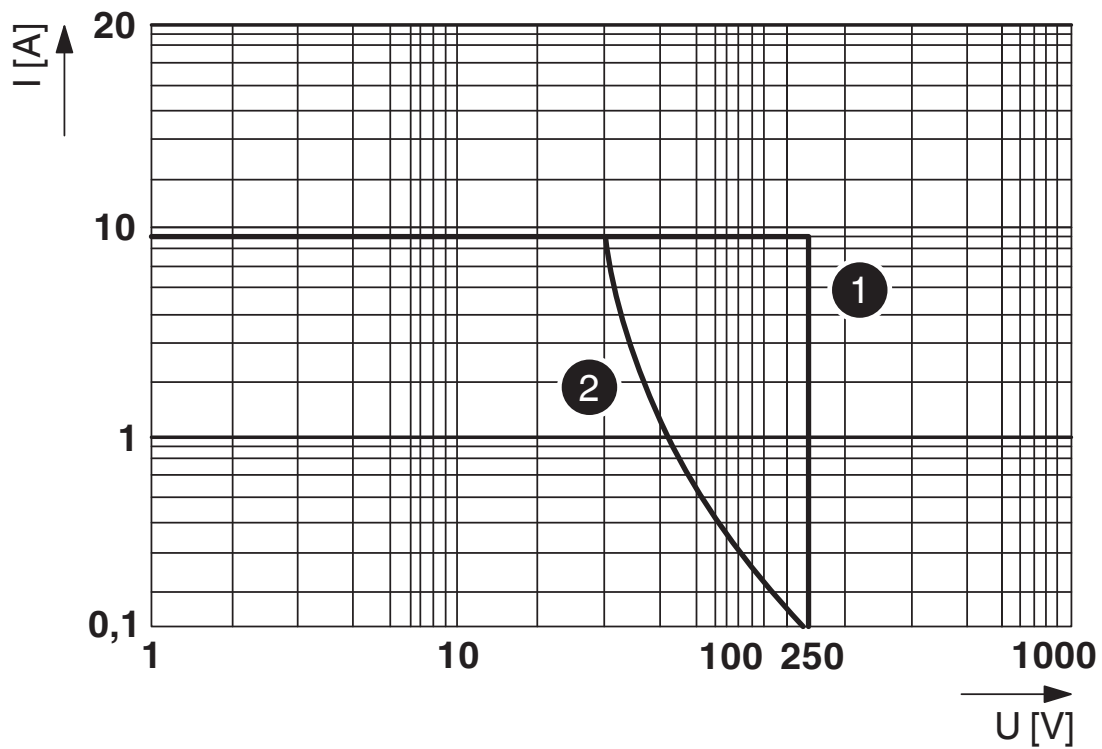


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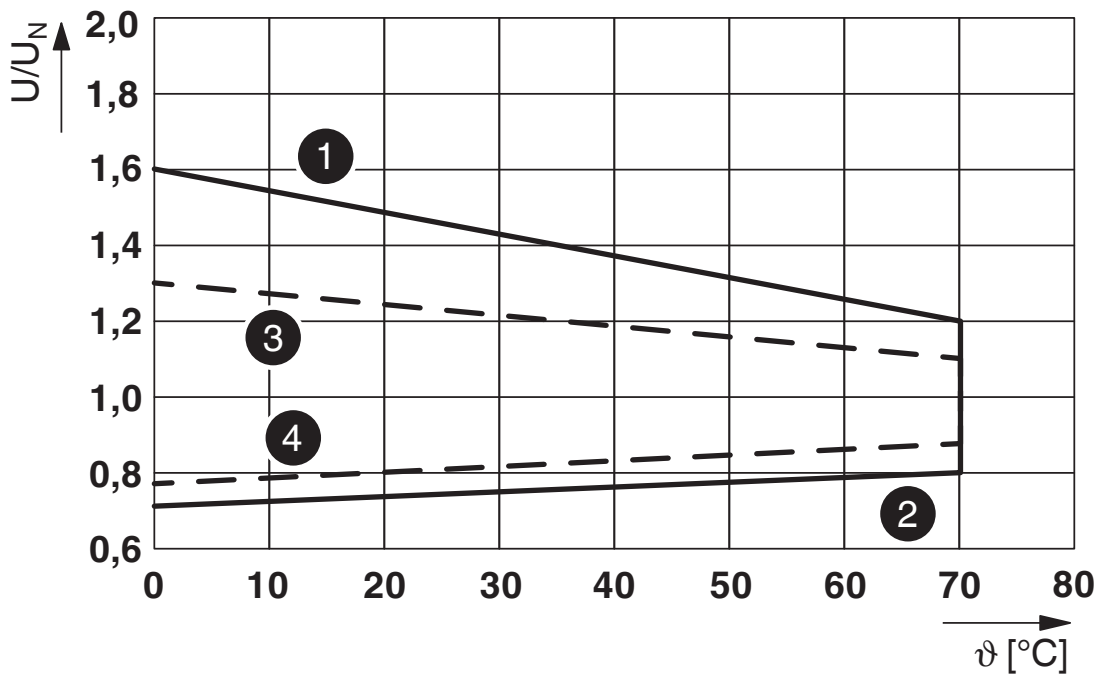
## Drawings

Diagram



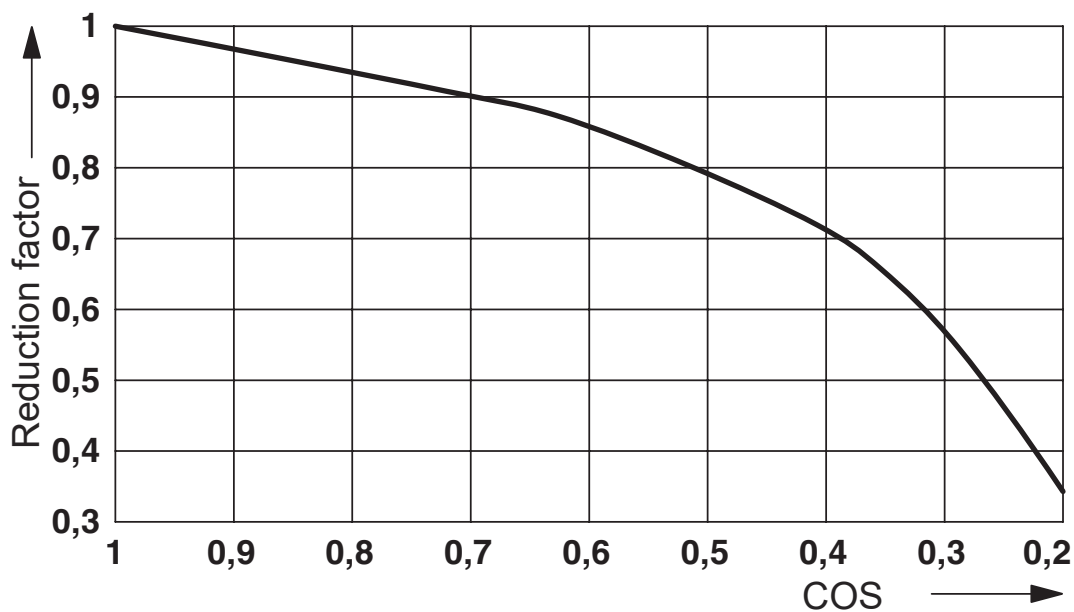
Interrupting rating  
1) AC, ohmic load  
2) DC, ohmic load

Diagram



Operating voltage range

Diagram



Service life reduction factor with various cos phi

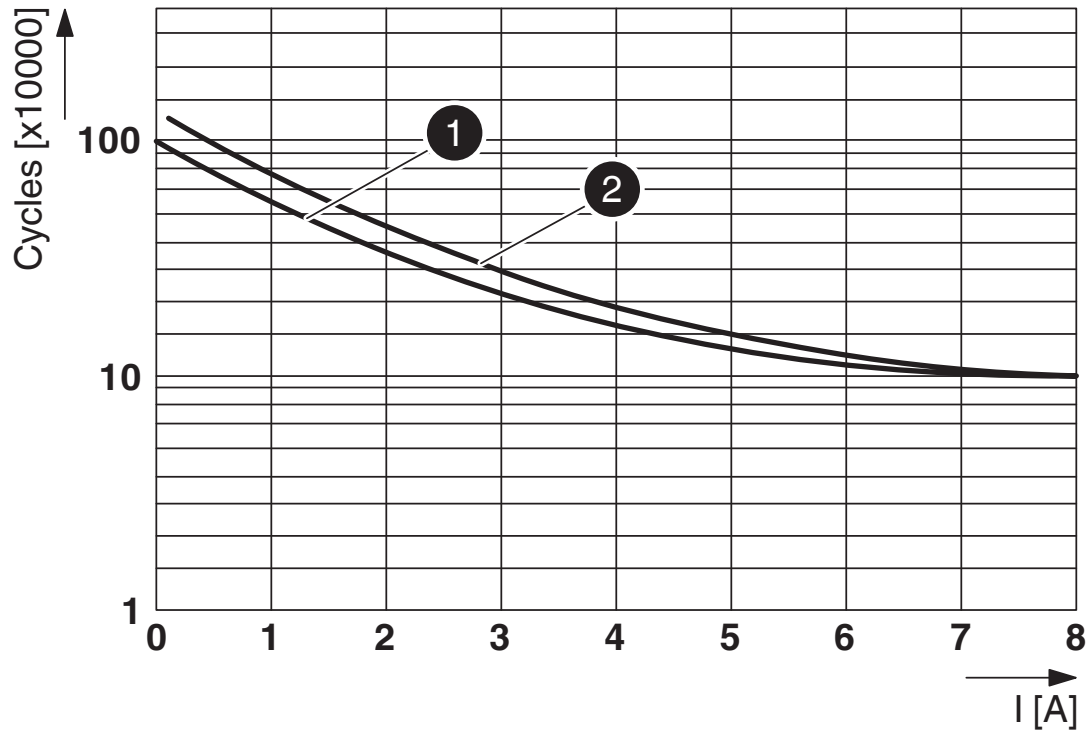
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Diagram



Electrical service life

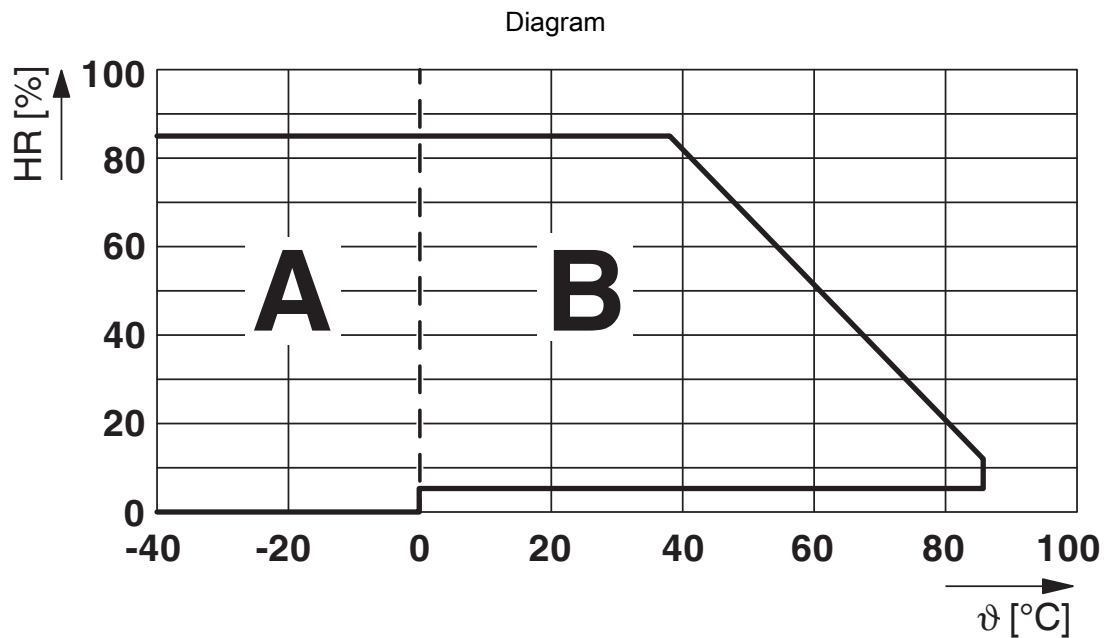
- 1) 30 V DC resistance load
- 2) 250 V AC resistance load

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

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1308296>



**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/2X21 - Relay base

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ECOR-1 relay base, for FASTON relay, Fork-type cable lug, 2 changeover contacts, Input voltage 230 V AC



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