

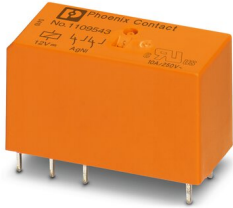
REL-MR-BL- 12DC/21-21 - Single relay



1109543

<https://www.phoenixcontact.com/in/products/1109543>

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Pluggable miniature power relay in basic design, with power contact, 2 changeover contacts, input voltage 12 V DC

Commercial data

Item number	1109543
Packing unit	20 pc
Minimum order quantity	20 pc
Sales key	CK6
Product key	CK6195
GTIN	4063151018696
Weight per piece (including packing)	14.61 g
Weight per piece (excluding packing)	14 g
Customs tariff number	85364900
Country of origin	AT

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Technical data

Product properties

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

Insulation characteristics

Insulation	Basic insulation
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Insulation characteristics

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	3

Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	0.4 W
Test voltage (Winding/contact)	5 kV AC (50 Hz, 1 min., winding/contact)
Rated insulation voltage	250 V AC
Rated surge voltage	4 kV

Input data

Coil side

Nominal input voltage U_N	12 V DC
Input voltage range	8.4 V DC ... 27 V DC
Drive and function	monostable
Drive (polarity)	non-polarized
Typical input current at U_N	33.3 mA
Typical response time	8 ms
Typical release time	6 ms
Coil voltage	12 V DC
Coil resistance	360 Ω \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	5 V (at 10 mA)
Limiting continuous current	8 A
Maximum inrush current	12 A (20 ms)

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Min. switching current	10 mA (At 5 V)
Interrupting rating (ohmic load) max.	190 W (at 24 V DC)
	85 W (at 48 V DC)
	60 W (at 60 V DC)
	44 W (at 110 V DC)
	60 W (at 220 V DC)
	2000 VA (for 250 V AC)
Switching capacity	2 A (at 24 V, DC13)
	1.5 A (at 230 V, AC15)

Connection data

Connection method	Plug / solder connection
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Dimensions

Dimensional drawing	
Width	12.7 mm
Height	29 mm
Depth	15.7 mm

Environmental and real-life conditions

Ambient conditions

Degree of protection	RT II
Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

Standards and regulations

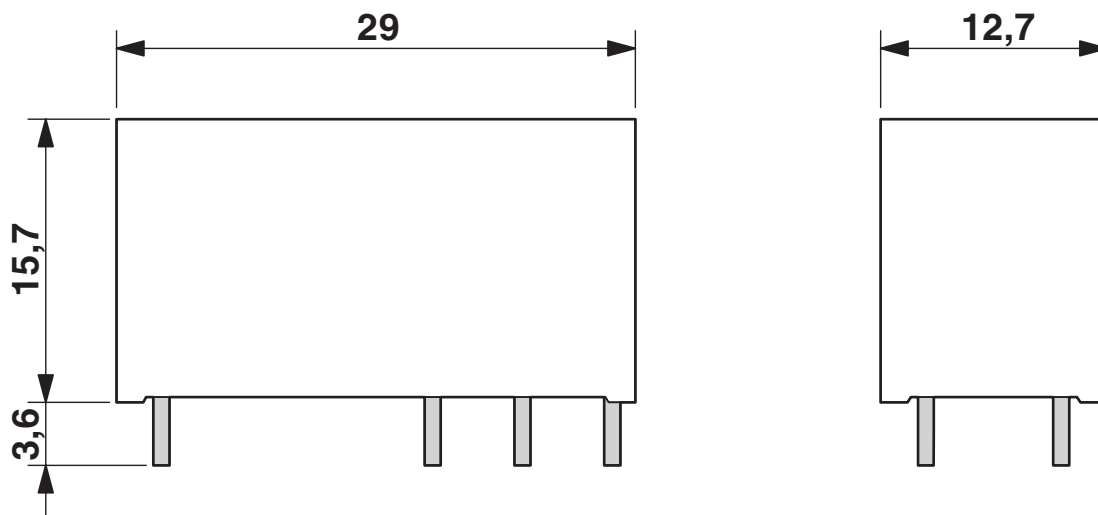
Standards/regulations	IEC 60664
	EN 61810-1

Mounting

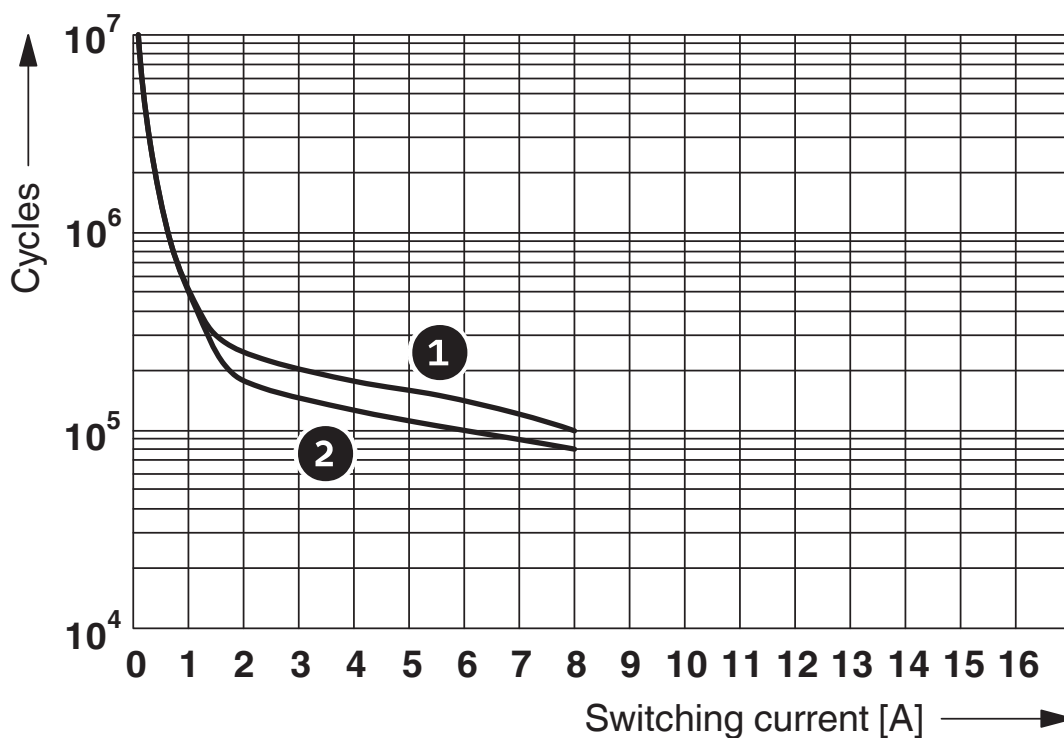
Mounting type	Plug-in mounting
Mounting position	any

Drawings

Dimensional drawing



Diagram

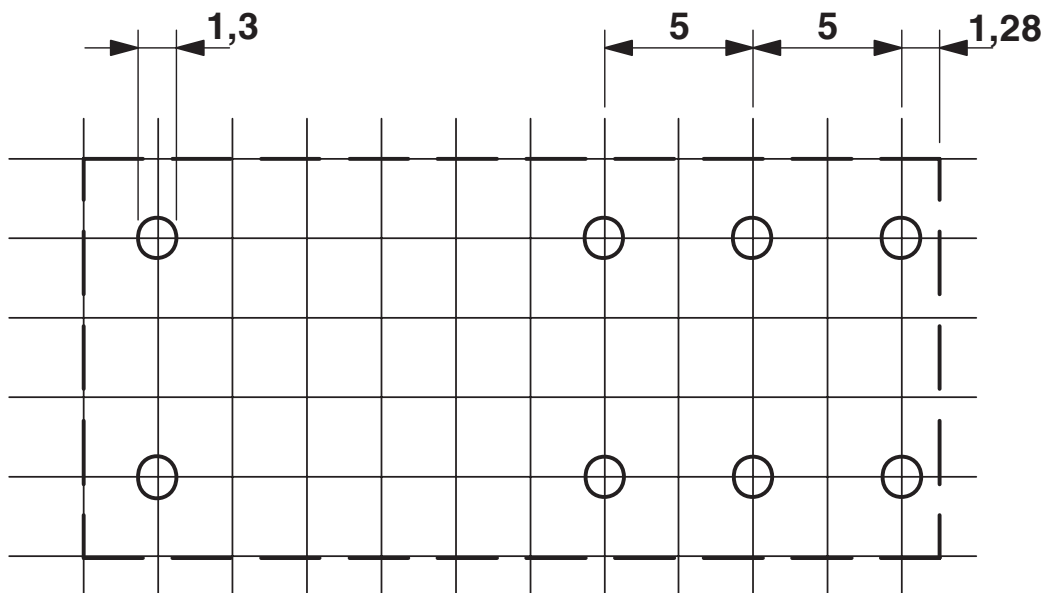


- ① 250 V AC, ohmic load (DC coils)
- ② 250 V AC, ohmic load (AC coils)

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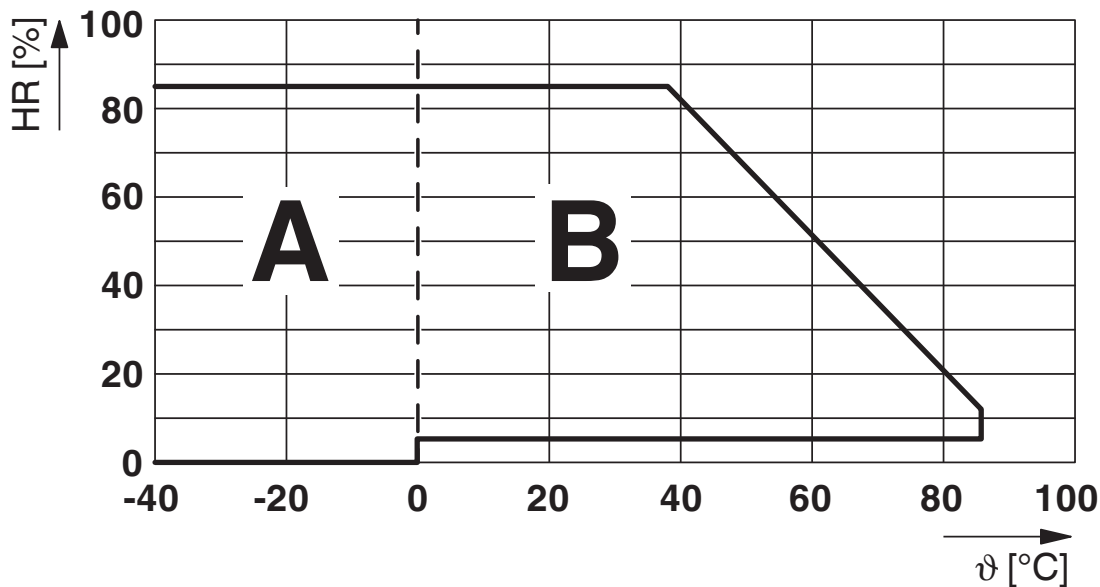
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Drilling plan/solder pad geometry



Basic pitch 2.5 mm

Diagram



Permissible humidity for operation and storage.

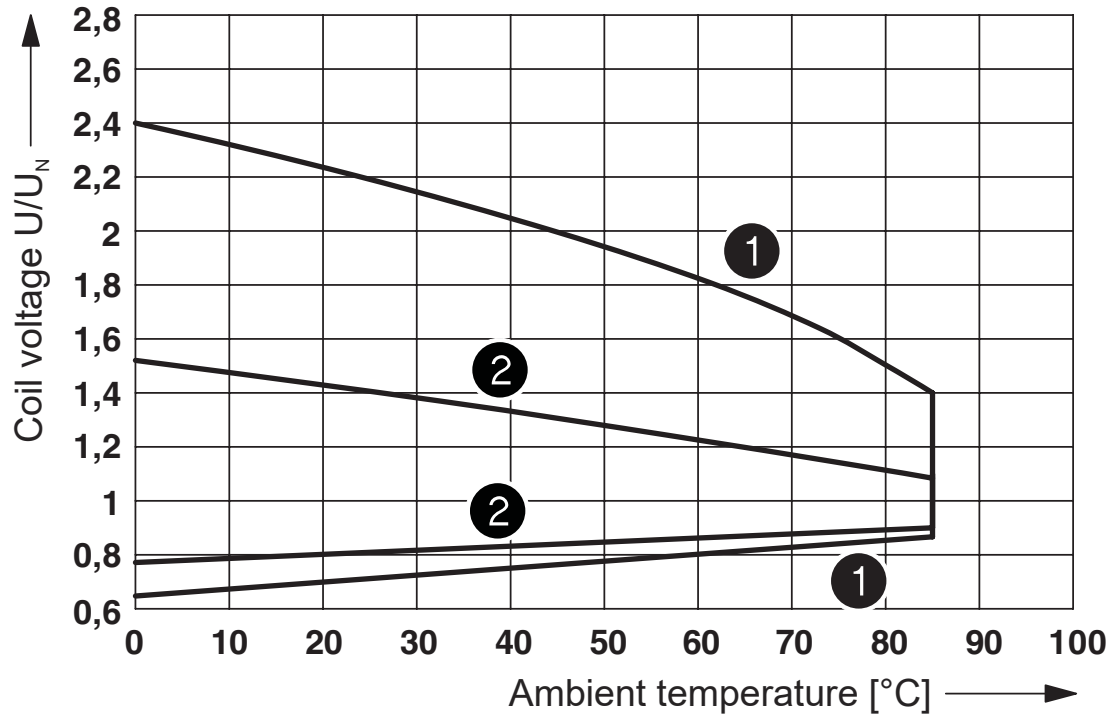
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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

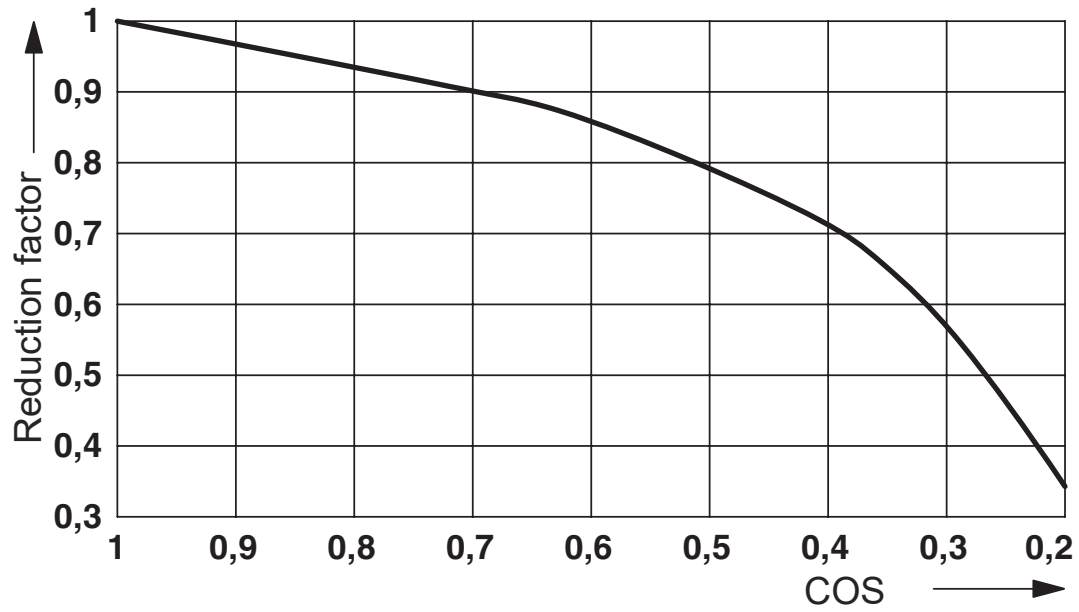
Diagram



- ① DC coils
- ② AC coils

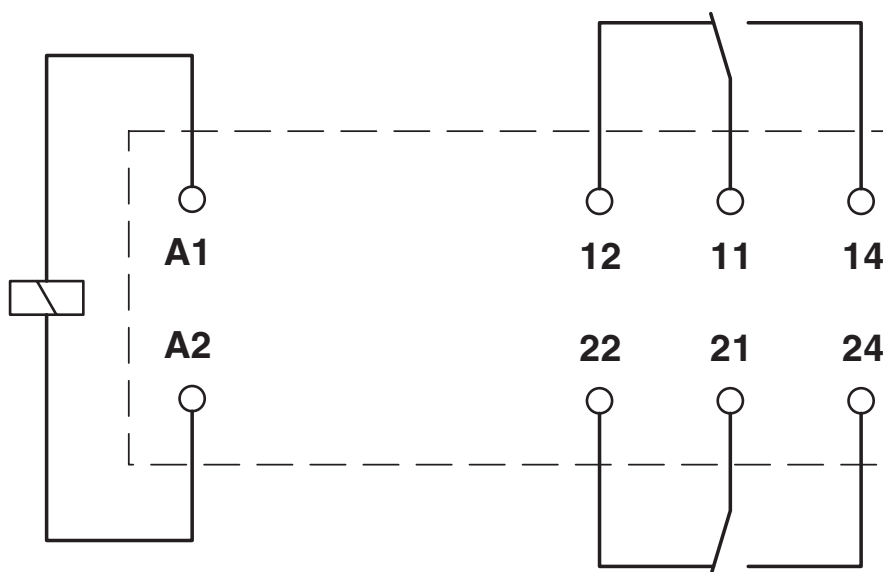
Operating voltage range

Diagram



Service life reduction factor with various cos phi

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/in/products/1109543>



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

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

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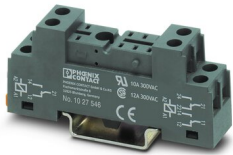
Accessories

ECOR-1-BSC2-RT/2X21 - Relay base

1027546

<https://www.phoenixcontact.com/in/products/1027546>

ECOR-1... relay base, for miniature power relays or miniature switching relays with 1 or 2 changeover contacts, bolt connection, for mounting on NS 35/7,5.



ECOR-1-BSC3/2X21 - Relay base

2907518

<https://www.phoenixcontact.com/in/products/2907518>

ECOR-1... relay base, for miniature power relay or miniature switching relay with 1 or 2 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5



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