

REL-MR-120AC/21-21AU - Single relay



2961477

<https://www.phoenixcontact.com/gb/products/2961477>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Plug-in miniature power relay, with multi-layer gold contact, 2 changeover contacts, input voltage 120 V AC

Your advantages

- RT III-proof (wash-proof)

Commercial data

Item number	2961477
Packing unit	10 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Sales key	CK6195
Product key	CK6195
Catalog page	Page 290 (C-5-2019)
GTIN	4017918937881
Weight per piece (including packing)	16.31 g
Weight per piece (excluding packing)	14.74 g
Customs tariff number	85364900
Country of origin	AT

REL-MR-120AC/21-21AU - Single relay



2961477

<https://www.phoenixcontact.com/gb/products/2961477>

Technical data

Product properties

Product type	Single relay
Operating mode	100% operating factor
Mechanical service life	1x 10 ⁷ cycles

Insulation characteristics

Insulation	Basic insulation
------------	------------------

Insulation characteristics

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	3

Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	0.84 W
Test voltage (Winding/contact)	5 kV AC (50 Hz, 1 min., winding/contact)
Test voltage (Contact/contact)	2.5 kV AC (50 Hz, 1 min., contact/contact)

Input data

Coil side

Nominal input voltage U _N	120 V AC
Input voltage range	93.6 V AC ... 186 V AC
Mains frequency	50/60 Hz
Drive and function	monostable
Drive (polarity)	non-polarized
Typical input current at U _N	7 mA (at 50 Hz) 5 mA (At 60 Hz)
Typical response time	3 ms ... 12 ms (depending on phase relation)
Typical release time range	2 ms ... 9 ms (depending on phase relation)
Coil resistance	8100 Ω ±15 % (at 20 °C)

Output data

Switching

Contact switching type	2 changeover contacts
Type of switch contact	Single contact
Contact material	AgNi, hard gold-plated
Maximum switching voltage	30 V AC 36 V DC
Minimum switching voltage	100 mV (at 10 mA)
Limiting continuous current	50 mA

REL-MR-120AC/21-21AU - Single relay



2961477
<https://www.phoenixcontact.com/gb/products/2961477>

Maximum inrush current	50 mA
Min. switching current	1 mA (at 24 V)
Interrupting rating (ohmic load) max.	1.2 W (at 24 V DC)

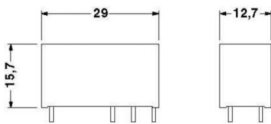
Switching: when the gold layer is destroyed

Note	the following values are applicable if a gold layer is destroyed
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	50 A (20 ms)
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)
	0.2 A (at 110 V, DC13)
	0.2 A (at 250 V, DC13)
	2 A (at 24 V, AC15)
	2 A (at 120 V, AC15)
	2 A (at 250 V, AC15)

Connection data

Connection method	Plug / solder connection
-------------------	--------------------------

Dimensions

Dimensional drawing	
Width	12.7 mm
Height	29 mm
Depth	15.7 mm

Material specifications

Color	white (RAL 9010)
-------	------------------

REL-MR-120AC/21-21AU - Single relay



2961477

<https://www.phoenixcontact.com/gb/products/2961477>

Environmental and real-life conditions

Ambient conditions

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

Approvals

Corrosive gas test

Identification	ISA-S71.04. G3 Harsh Group
	EN 60068-2-60

Standards and regulations

Standards/regulations	IEC 60664
	EN 50178
	EN 61810-1

Mounting

Assembly instructions	Can be aligned without spacing ($> 70\text{ °C} \geq 2.5\text{ mm}$)
Mounting position	any

REL-MR-120AC/21-21AU - Single relay

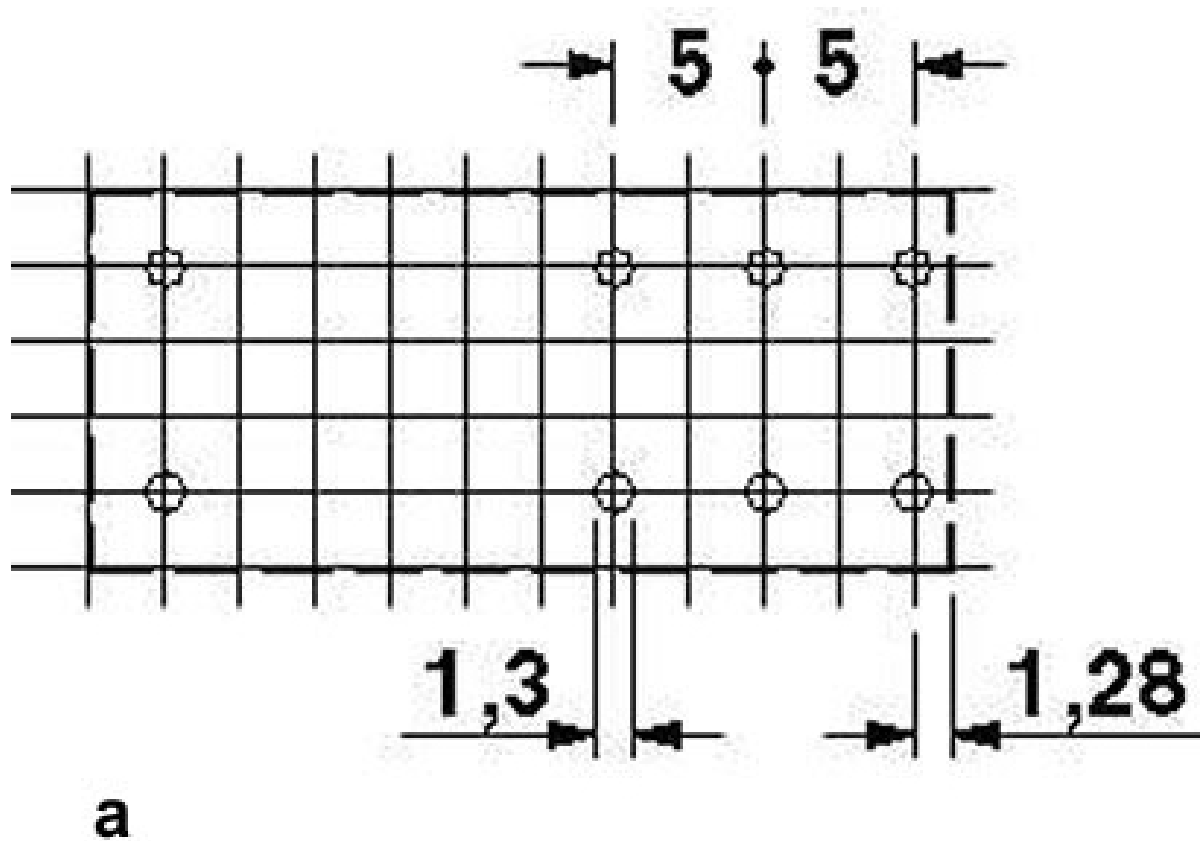


2961477

<https://www.phoenixcontact.com/gb/products/2961477>

Drawings

Drilling plan/solder pad geometry



a = pitch division 2.5 mm

Diagram



Service life reduction factor with various cos phi



Permissible humidity for operation and storage.

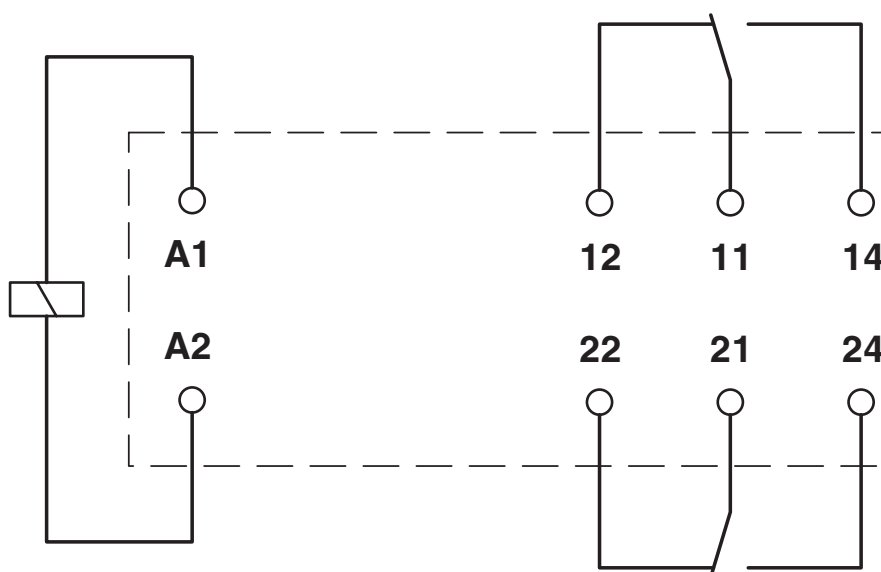
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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

Circuit diagram



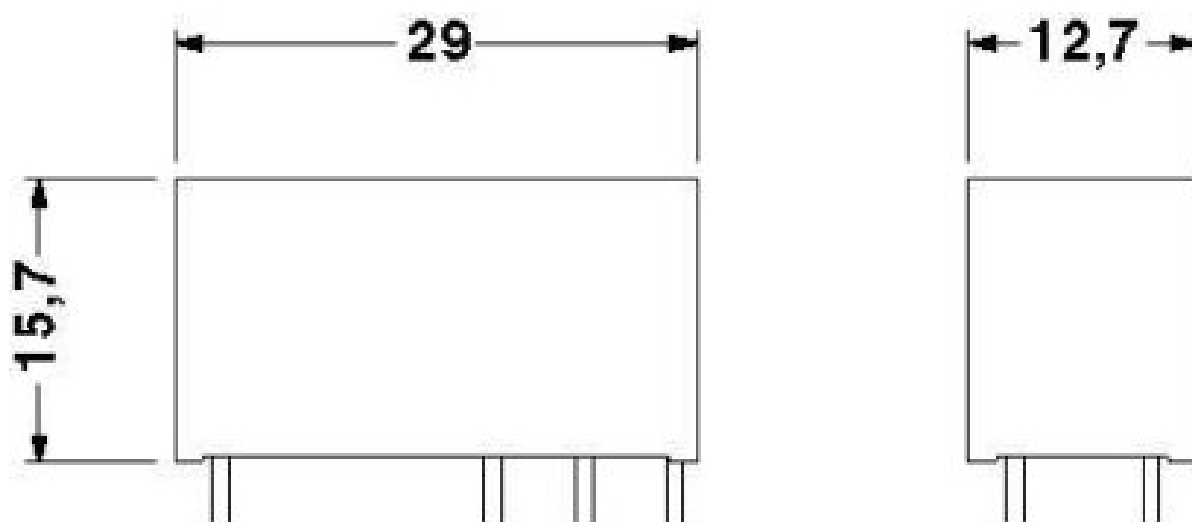
REL-MR-120AC/21-21AU - Single relay

2961477

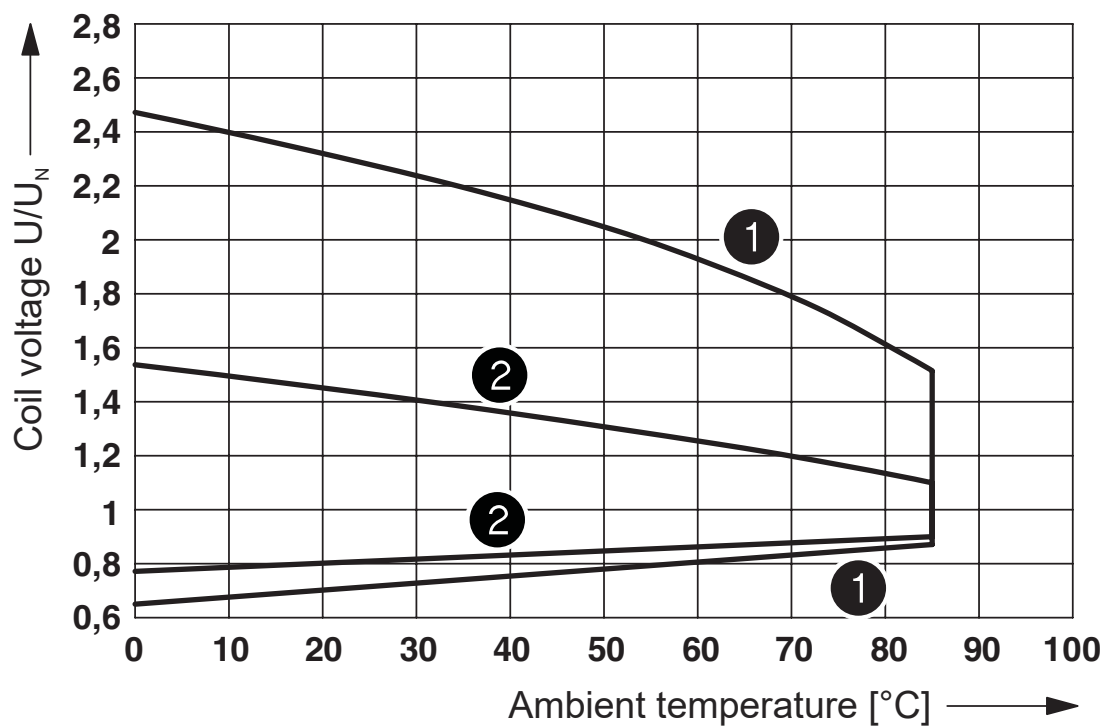
<https://www.phoenixcontact.com/gb/products/2961477>



Dimensional drawing



Diagram

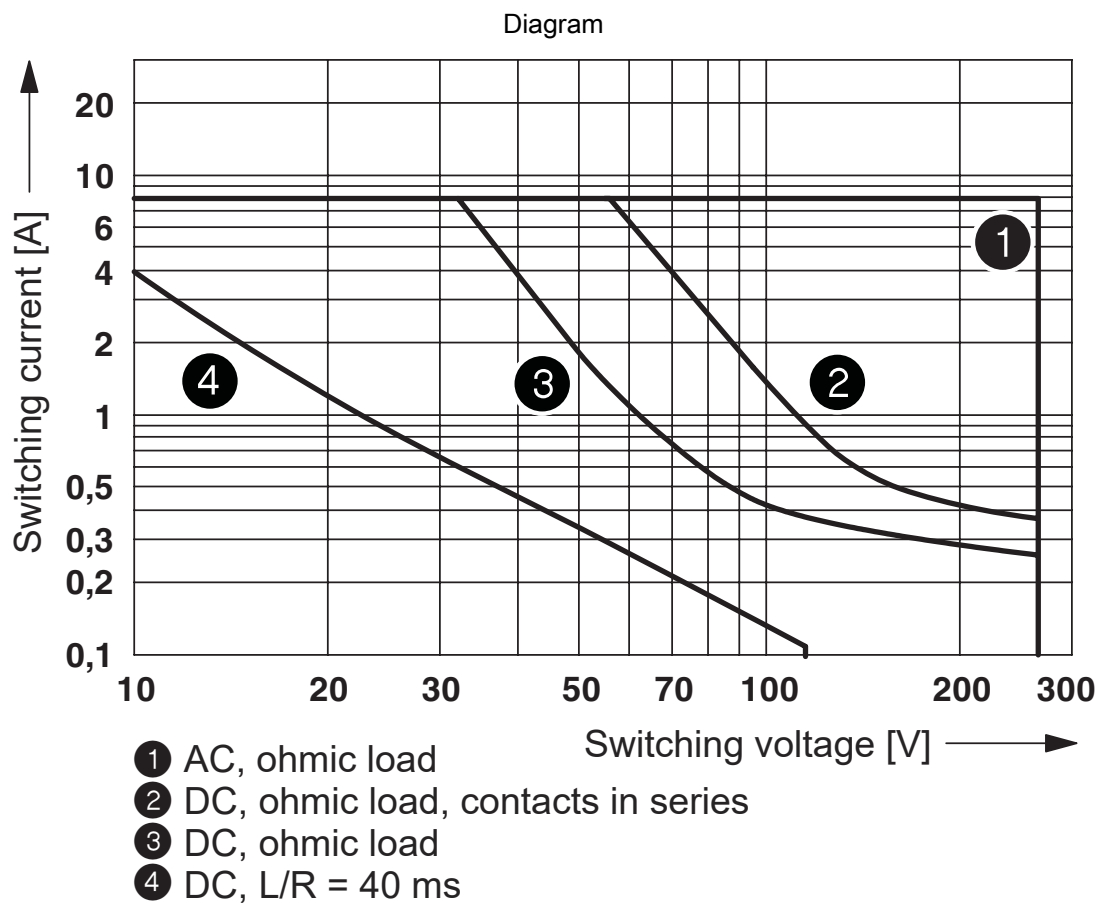


- ① DC coils
- ② AC coils

Operating voltage range



Electrical service life



Interrupting rating

REL-MR-120AC/21-21AU - Single relay



2961477

<https://www.phoenixcontact.com/gb/products/2961477>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/2961477>



cUL Recognized
Approval ID: FILE E 228652



UL Recognized
Approval ID: FILE E 228652



EAC
Approval ID: TR_TS_D_00573_c



UL Recognized
Approval ID: FILE E 172140



EAC
Approval ID: RU*C-DE.*08.B.00010



VDE Zeichengenehmigung
Approval ID: 40007758



VDE Zeichengenehmigung
Approval ID: 40048281



cUL Recognized
Approval ID: FILE E 172140

REL-MR-120AC/21-21AU - Single relay



2961477

<https://www.phoenixcontact.com/gb/products/2961477>

Classifications

ECLASS

ECLASS-11.0	27371601
ECLASS-12.0	27371601
ECLASS-13.0	27371601

ETIM

ETIM 9.0	EC001437
----------	----------

UNSPSC

UNSPSC 21.0	39122300
-------------	----------

REL-MR-120AC/21-21AU - Single relay



2961477

<https://www.phoenixcontact.com/gb/products/2961477>

Environmental product compliance

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

REL-MR-120AC/21-21AU - Single relay



2961477

<https://www.phoenixcontact.com/gb/products/2961477>

Mandatory accessories

RIF-1-BPT/2X21 - Relay base

2900931

<https://www.phoenixcontact.com/gb/products/2900931>



Relay base RIF-1..., for miniature power relay with 1 or 2 changeover contacts or solid-state relays of the same design, Push-in connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

RIF-1-BSC/2X21 - Relay base

2900930

<https://www.phoenixcontact.com/gb/products/2900930>



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

Phoenix Contact 2024 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT Ltd

Halesfield 13, Telford

Shropshire, TF7 4PG

01952 681700

info@phoenixcontact.co.uk