

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



2961419

<https://www.phoenixcontact.com/us/products/2961419>

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 power contact for high continuous currents, 1 changeover contact, input voltage 120 V AC

Your advantages

- Switching current of up to 16 A

Commercial data

Item number	2961419
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C460
Product key	DK6931
GTIN	4017918937829
Weight per piece (including packing)	17.104 g
Weight per piece (excluding packing)	14.9 g
Customs tariff number	85364900
Country of origin	CZ

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



2961419

<https://www.phoenixcontact.com/us/products/2961419>

Technical data

Product properties

Product type	Single relay
Set comprises	2903340 RIF-1-RPT-LV-120AC/1X21
Operating mode	100% operating factor
Mechanical service life	1x 10 ⁷ cycles

Insulation characteristics

Overvoltage category	III
Pollution degree	3

Data management status

Date of last data management	01.04.2026
------------------------------	------------

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)

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 (50 Hz)
	5 mA (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	1 changeover contact
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	12 V (at 10 mA)
Limiting continuous current	16 A
Maximum inrush current	25 A (20 ms)
Min. switching current	10 mA (at 12 V)

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



2961419

<https://www.phoenixcontact.com/us/products/2961419>

Interrupting rating (ohmic load) max.	384 W (at 24 V DC)
	58 W (at 48 V DC)
	48 W (at 60 V DC)
	50 W (at 110 V DC)
	80 W (at 220 V DC)
	4000 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)
	6 A (at 24 V, AC15)
	6 A (at 120 V, AC15)
	6 A (at 250 V, AC15)
Motor load according to UL 508	1/2 HP, 120 V AC (N/O contact)
	1 HP, 240 V AC (N/O contact)
	1/3 HP, 120 V AC (N/C contact)
	3/4 HP, 240 V AC (N/C contact)
	1/4 HP, 200 ... 250 V AC

Connection data

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

Dimensions

Item dimensions

Width	12.7 mm
Height	29 mm
Depth	15.7 mm

Material specifications

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

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

Approvals

Corrosive gas test

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

Standards and regulations

IEC 60664

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



2961419

<https://www.phoenixcontact.com/us/products/2961419>

Standards/regulations	EN 50178
	EN 61810-1

Mounting

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

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

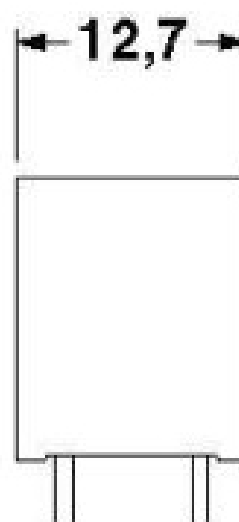
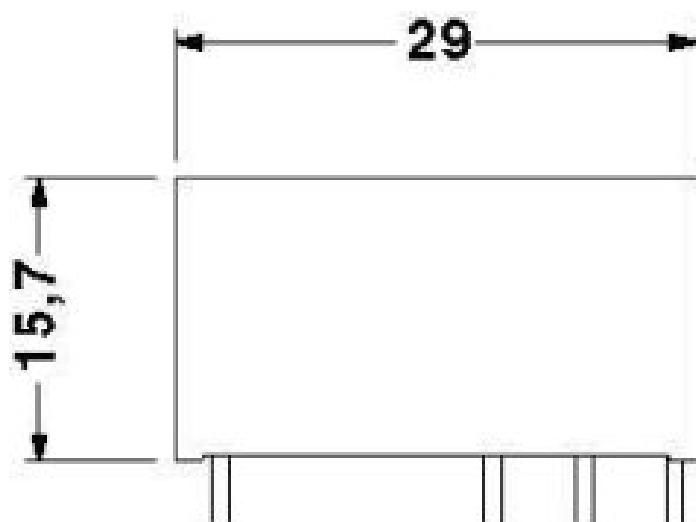
2961419

<https://www.phoenixcontact.com/us/products/2961419>

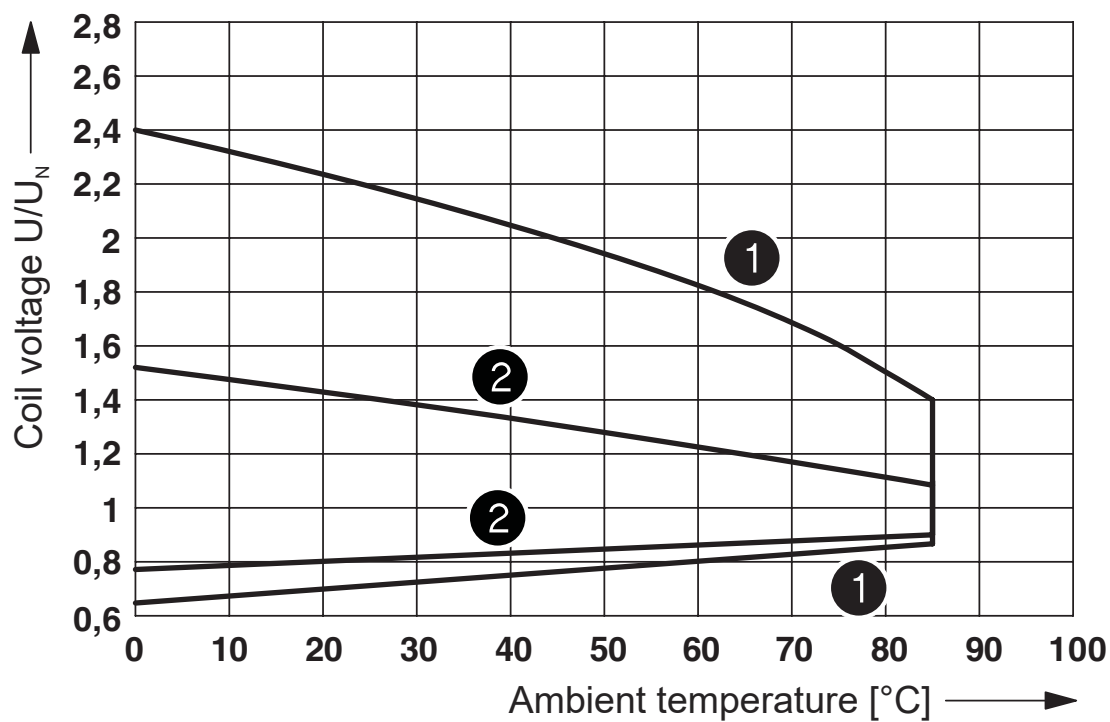


Drawings

Dimensional drawing

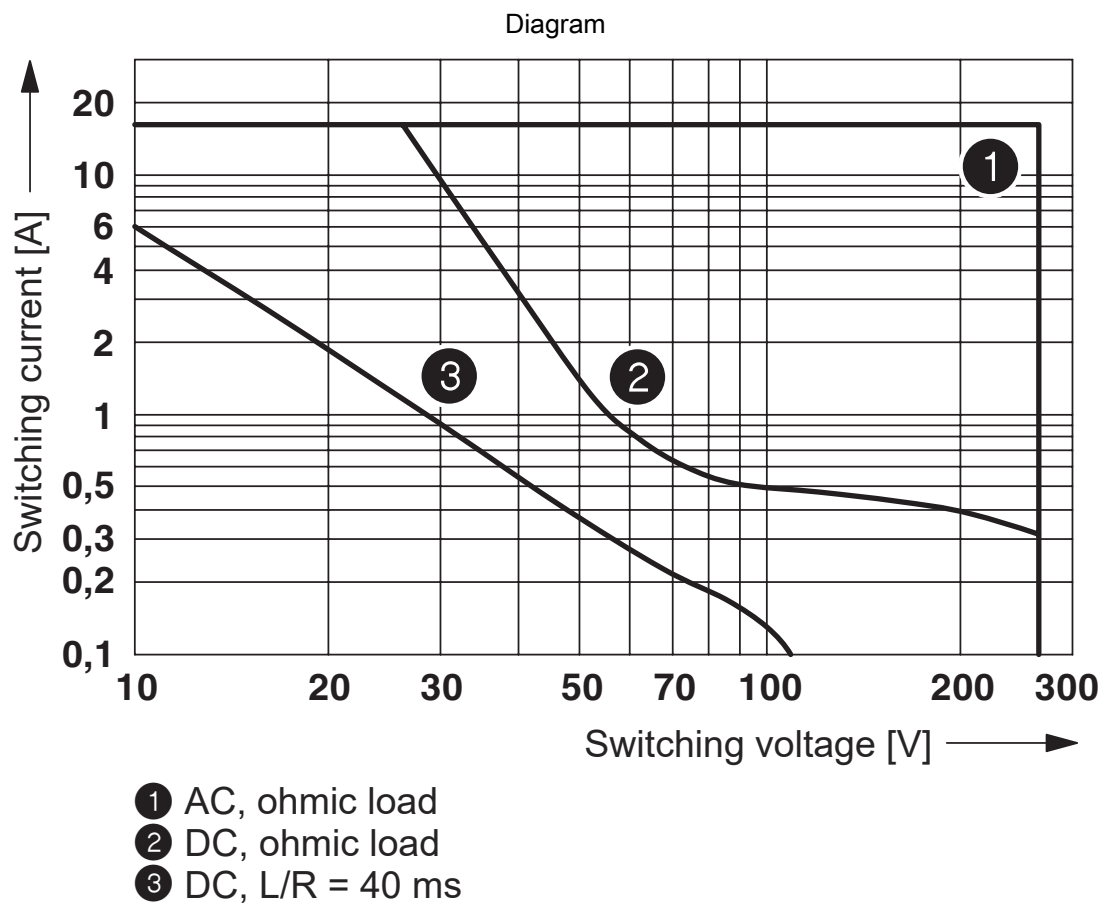


Diagram

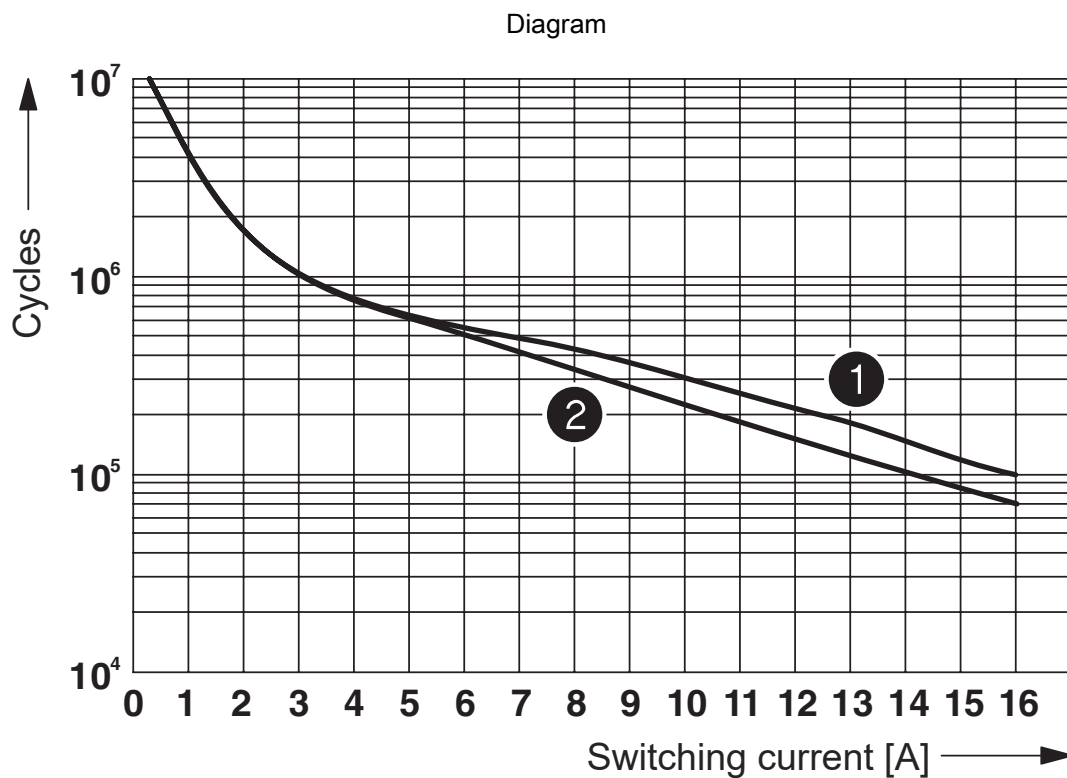


- ① DC coils
- ② AC coils

Operating voltage range



Interrupting rating



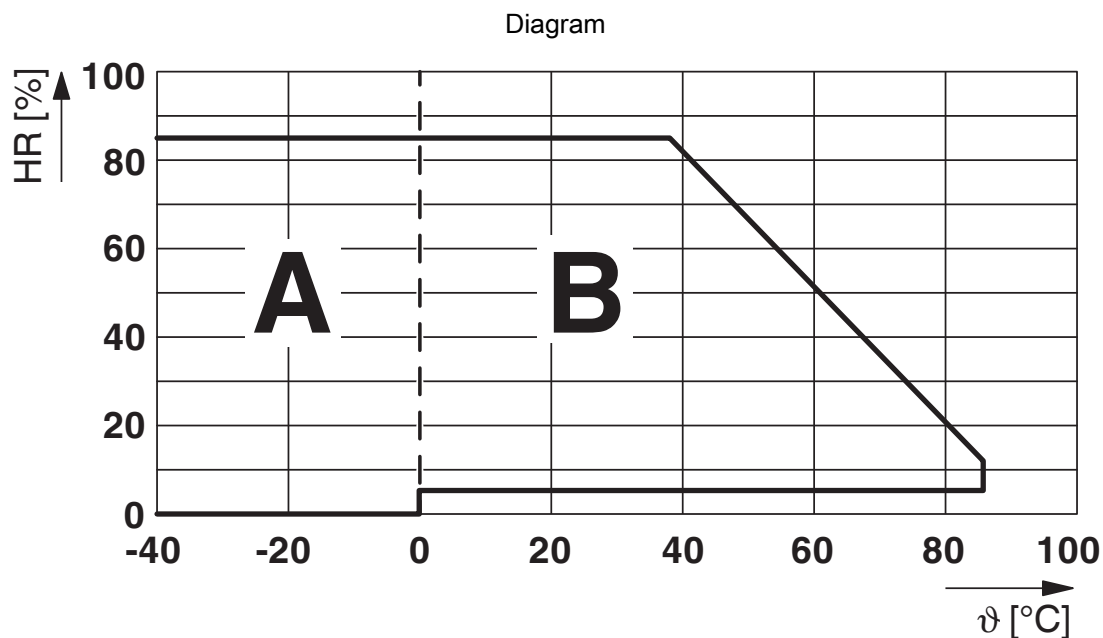
- ① 250 V AC, ohmic load (DC coils)
- ② 250 V AC, ohmic load (AC coils)

Electrical service life

Diagram



Service life reduction factor with various cos phi



Permissible humidity for operation and storage.

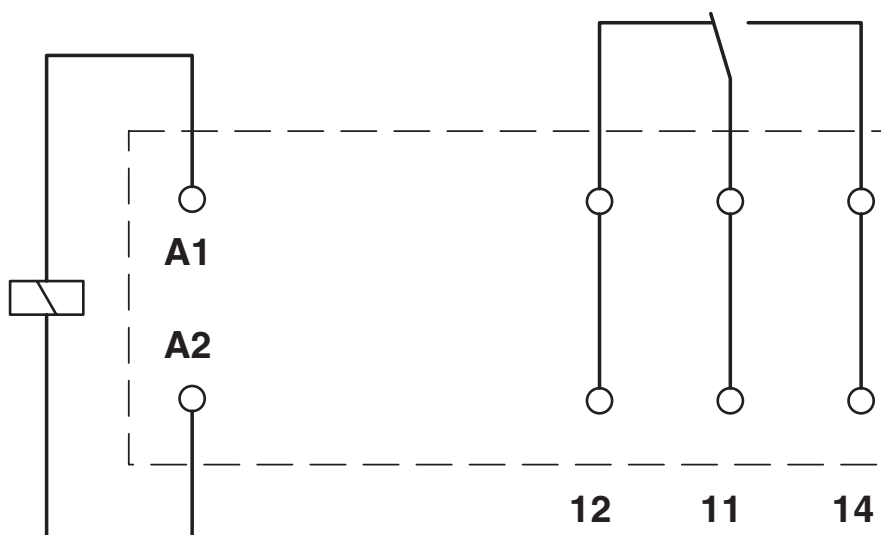
The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures $\leq 0^{\circ}\text{C}$ must be prevented

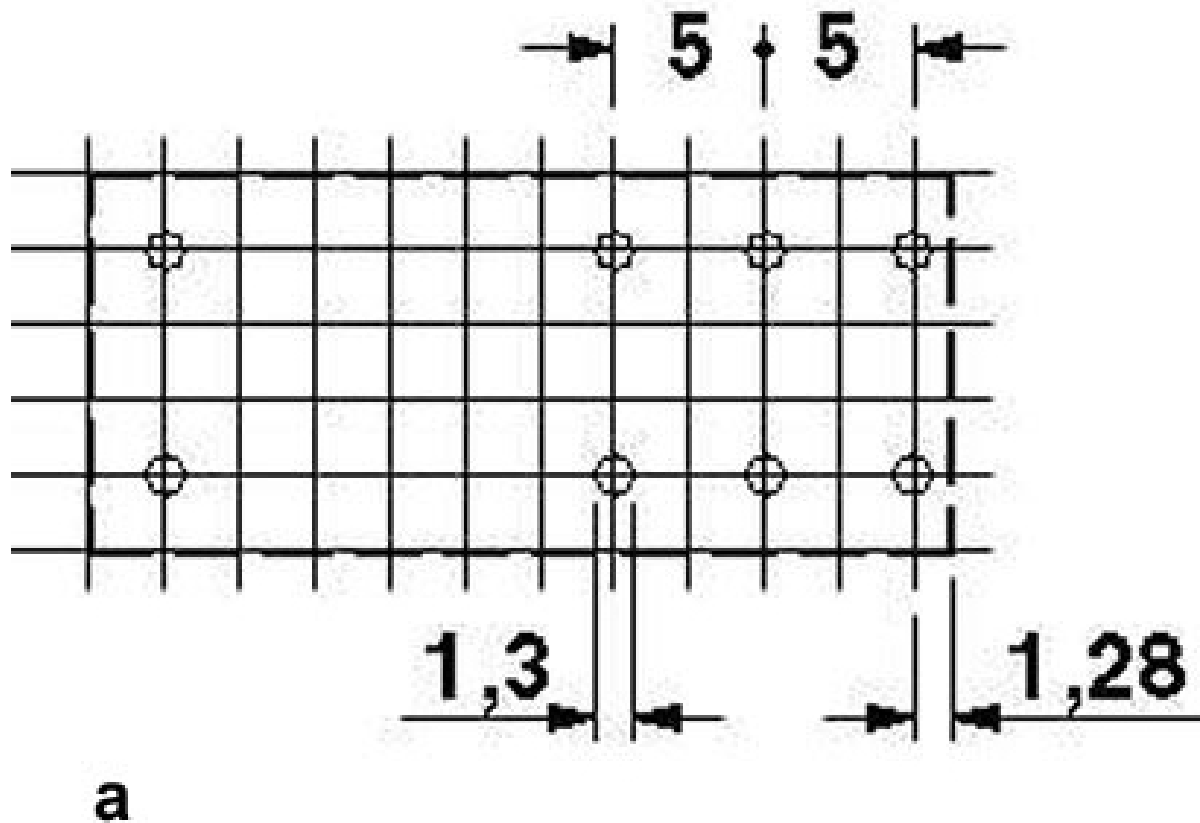
Area B: Condensation at ambient temperatures $> 0^{\circ}\text{C}$ must be prevented

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



Drilling plan/solder pad geometry



a = pitch division 2.5 mm

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



2961419

<https://www.phoenixcontact.com/us/products/2961419>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2961419>



cUL Recognized
Approval ID: FILE E 228652



UL Recognized
Approval ID: FILE E 228652



VDE Zeichengenehmigung
Approval ID: 40048281



VDE Zeichengenehmigung
Approval ID: 40007758



cULus Recognized
Approval ID: E172140

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



2961419

<https://www.phoenixcontact.com/us/products/2961419>

Classifications

ECLASS

ECLASS-13.0	27371601
ECLASS-15.0	27371601

ETIM

ETIM 10.0	EC001437
-----------	----------

UNSPSC

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

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



2961419
<https://www.phoenixcontact.com/us/products/2961419>

Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes, No exemptions
China RoHS	
Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits
EU REACH SVHC	
REACH candidate substance (CAS No.)	No substance above 0.1 wt%
EF3.1 Climate Change	
CO2e kg	0.313 kg CO2e

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

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