

Single relay - REL-MR- 24AC/21-21 - 2961435

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Plug-in miniature power relay, with power contact, 2 PDTs, input voltage 24 V AC

Your advantages

- RT III-proof (wash-proof)
- Switching current of up to 8 A



Key Commercial Data

| | |
|------------------------|---------------|
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| GTIN | |
| GTIN | 4017918937843 |

Technical data

Dimensions

| | |
|--------|---------|
| Width | 12.7 mm |
| Height | 29 mm |
| Depth | 15.7 mm |

Ambient conditions

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

Coil side

| | |
|-------------------------------------------|------------------|
| Nominal input voltage U_N | 24 V AC |
| Input voltage range in reference to U_N | see diagram |
| Mains frequency | 50/60 Hz |
| Typical input current at U_N | 32 mA (at 50 Hz) |

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Coil side

| | |
|-----------------------------------------|----------------------------------------------|
| | 24 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 | 350 Ω ±10 % (at 20 °C) |
| Power dissipation for nominal condition | 0.77 W |

Contact side

| | |
|---------------------------------------|------------------------|
| Contact type | 2 PDT |
| Type of switch contact | Single contact |
| Contact material | AgNi |
| Maximum switching voltage | 250 V AC/DC |
| Minimum switching voltage | 5 V (at 10 mA) |
| Min. switching current | 10 mA (At 5 V) |
| Maximum inrush current | 12 A (20 ms) |
| Limiting continuous current | 8 A |
| 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 250 V, DC13) |
| | 3 A (at 24 V, AC15) |
| | 3 A (at 120 V, AC15) |
| | 3 A (at 250 V, AC15) |
| Motor load according to UL 508 | 1/4 HP, 120 V AC |
| | 1/2 HP, 240 V AC |

General

| | |
|------------------------------------------|---------------------------------------------------|
| Test voltage relay winding/relay contact | 5 kV AC (50 Hz, 1 min.) |
| Test voltage relay contact/relay contact | 2.5 kV AC (50 Hz, 1 min.) |
| Operating mode | 100% operating factor |
| Mechanical service life | 1x 10 ⁷ cycles |
| Service life, electrical | see diagram |
| Mounting position | any |
| Assembly instructions | Can be aligned without spacing (> 70 °C ≥ 2.5 mm) |

Connection data

| | |
|-------------------|-------------------|
| Connection method | Solder connection |
|-------------------|-------------------|

Standards and Regulations

| | |
|----------------------------------|-----|
| Connection in acc. with standard | CUL |
|----------------------------------|-----|

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Standards and Regulations

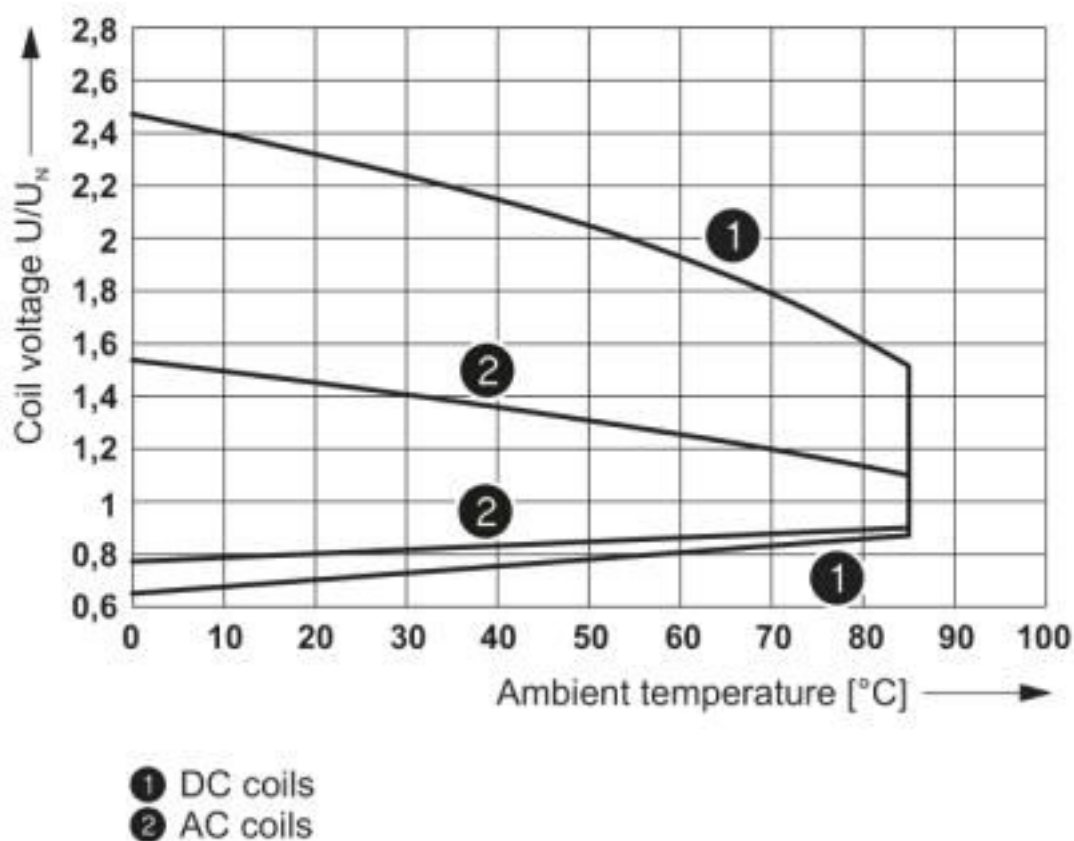
| | |
|-----------------------|------------|
| Standards/regulations | IEC 60664 |
| | EN 50178 |
| | EN 61810-1 |
| Pollution degree | 3 |
| Overvoltage category | III |

Environmental Product Compliance

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

Drawings

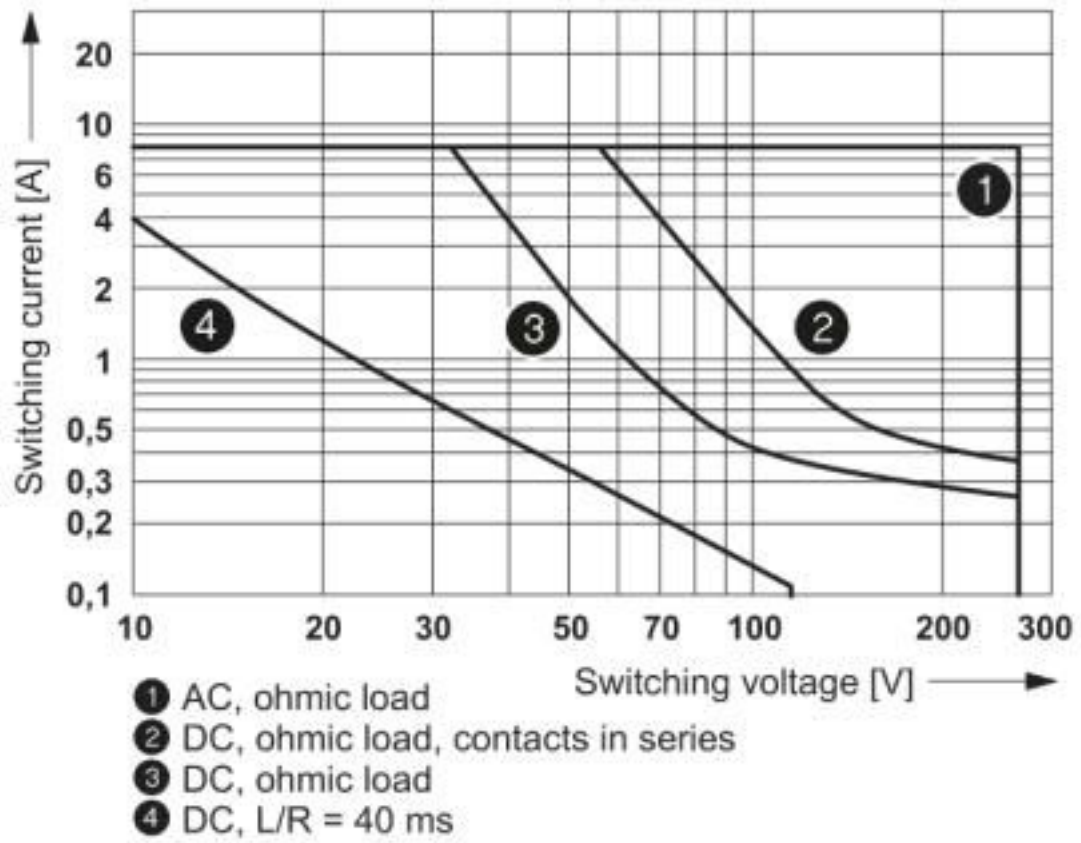
Diagram



Operating voltage range

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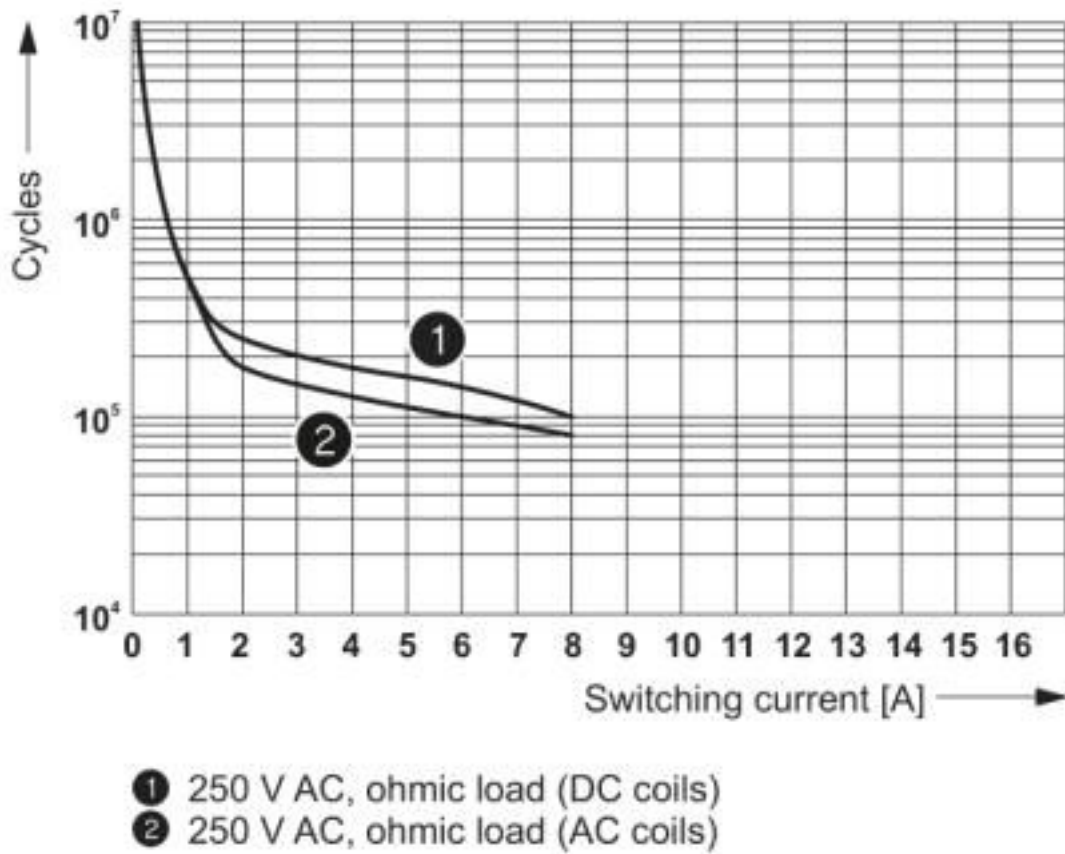
Diagram



Interrupting rating

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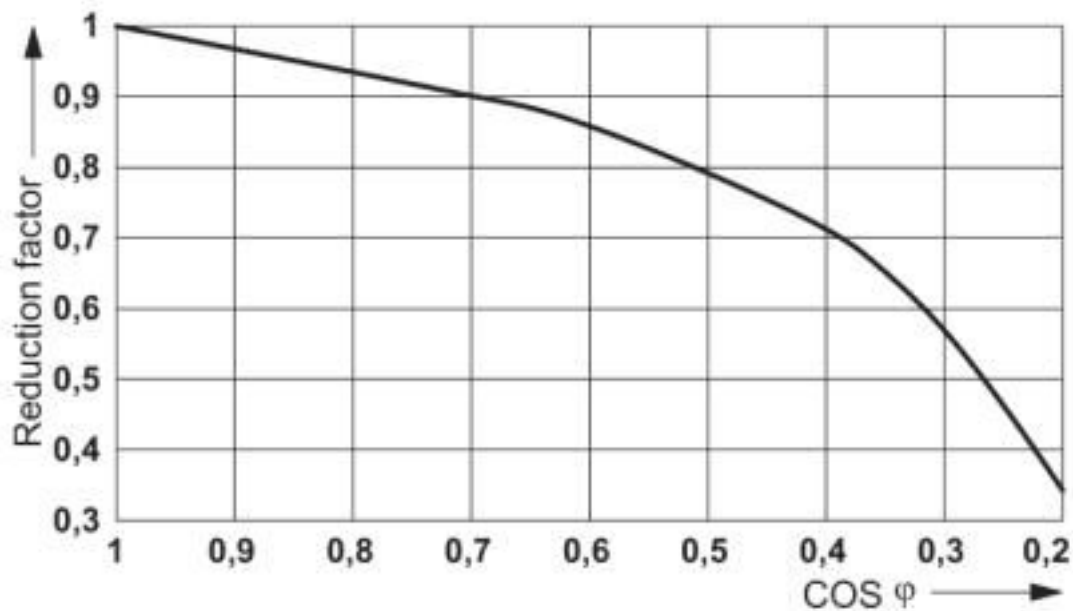
Diagram



Electrical service life

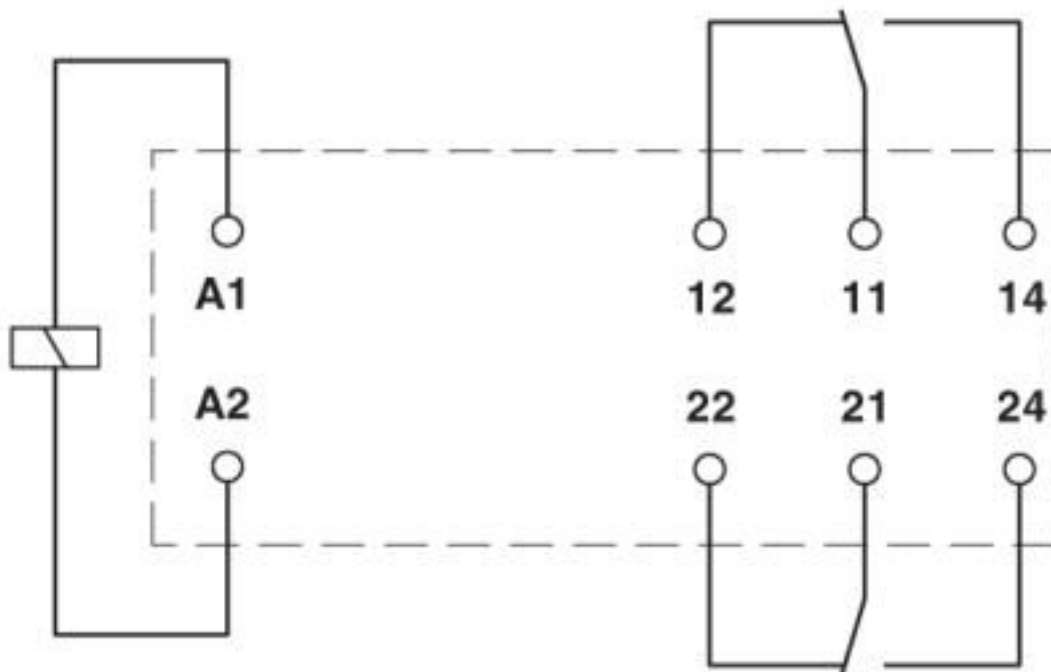
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Diagram



Service life reduction factor with various cos phi

Circuit diagram



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Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27371601 |
| eCl@ss 4.0 | 27371100 |
| eCl@ss 4.1 | 27371100 |
| eCl@ss 5.0 | 27371600 |
| eCl@ss 5.1 | 27371600 |
| eCl@ss 6.0 | 27371600 |
| eCl@ss 7.0 | 27371601 |
| eCl@ss 8.0 | 27371601 |
| eCl@ss 9.0 | 27371601 |

ETIM

| | |
|----------|----------|
| ETIM 2.0 | EC001437 |
| ETIM 3.0 | EC001437 |
| ETIM 4.0 | EC001437 |
| ETIM 5.0 | EC001437 |
| ETIM 6.0 | EC001437 |
| ETIM 7.0 | EC001437 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 30211916 |
| UNSPSC 7.0901 | 39121515 |
| UNSPSC 11 | 39121515 |
| UNSPSC 12.01 | 39121515 |
| UNSPSC 13.2 | 39122334 |
| UNSPSC 18.0 | 39122334 |
| UNSPSC 19.0 | 39122334 |
| UNSPSC 20.0 | 39122334 |
| UNSPSC 21.0 | 39122334 |

Approvals

Approvals

Approvals

EAC / EAC / UL Recognized / UL Recognized / cUL Recognized / cUL Recognized / VDE Zeichengenehmigung / VDE Zeichengenehmigung

Ex Approvals

Approval details

Single relay - REL-MR- 24AC/21-21 - 2961435

Approvals

| | | | |
|-----|--|--|-----------------|
| EAC | | | TR_TS_D_00573_c |
|-----|--|--|-----------------|

| | | | |
|-----|--|--|---------------------|
| EAC | | | RU*C-DE.*08.B.00010 |
|-----|--|--|---------------------|

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| UL Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 228652 |
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| UL Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 172140 |
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| cUL Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 228652 |
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| VDE Zeichengenehmigung | | http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx | 40007758 |
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| VDE Zeichengenehmigung | | http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx | 40048281 |
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Accessories

Additional products

Relay base - PR1-BSC2/2X21 - 2833518



Relay base PR1..., for miniature power relay or miniature switching relay with 1 or 2 PDT or solid-state relay of same construction, 2/2 level design, screw connections, connection facility for input/interference suppression modules

Single relay - REL-MR- 24AC/21-21 - 2961435

Accessories

Relay base - PR1-BSC3/2X21 - 2833521



Relay base PR1..., for miniature power relay or miniature switching relay with 1 or 2 PDT or solid-state relay of same construction, 1/3 level design, screw connections, connection facility for input/interference suppression modules

Relay base - PR1-BSP3/2X21 - 2833534



Relay base PR1..., for miniature power relay or miniature switching relay with 1 or 2 PDT or solid-state relay of same construction, 1/3 level design, spring-cage connections, connection facility for input/interference suppression modules

Relay base - RIF-1-BPT/2X21 - 2900931



RIF-1... relay base, for miniature power relay with 1 or 2 PDTs or solid-state relays of the same design, push-in connection, plug-in option for input/suppressor modules, for mounting on NS 35/7,5

Relay base - RIF-1-BSC/2X21 - 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

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