

Relay Module - RIF-3-RSC-LV-230AC/2X21 - 2903301

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Pre-assembled relay module with screw connection, consisting of: relay base, power contact relay, plug-in display/interference suppression module, and retaining bracket. Contact type: 2 changeover contacts. Input voltage: 230 V AC

Product Description

The pluggable electromechanical and solid-state relays in the RIFLINE complete product range and the base are recognized and approved in accordance with UL 508.

The relevant approvals can be called up at the individual components in question.



Key Commercial Data

| | |
|--------------|---------------|
| Packing unit | 5 pc |
| GTIN | |
| GTIN | 4046356732567 |

Technical data

Note

| | |
|-------------------------|---------------------------------------------------------------------------|
| Utilization restriction | EMC: class A product, see manufacturer's declaration in the download area |
|-------------------------|---------------------------------------------------------------------------|

Dimensions

| | |
|--------|-------|
| Width | 40 mm |
| Height | 96 mm |
| Depth | 90 mm |

Ambient conditions

| | |
|-----------------------------------------|-------------------|
| Ambient temperature (operation) | -40 °C ... 50 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Degree of protection | IP20 (Relay base) |
| | RT I (Relay) |

Coil side

| | |
|-----------------------------|----------|
| Nominal input voltage U_N | 230 V AC |
|-----------------------------|----------|

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Technical data

Coil side

| | |
|-------------------------------------------|----------------|
| Input voltage range in reference to U_N | see diagram |
| Mains frequency | 50/60 Hz |
| Typical input current at U_N | 13 mA |
| Typical response time | 5 ms ... 15 ms |
| Typical release time range | 5 ms ... 20 ms |
| Coil voltage | 230 V AC |
| Protective circuit | Varistor |
| Operating voltage display | Yellow LED |

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 | 10 V (At 24 mA) |
| Min. switching current | 10 mA (at 24 V) |
| Maximum inrush current | 30 A (20 ms, N/O contacts) |
| Limiting continuous current | 7 A (see diagram) |
| Interrupting rating (ohmic load) max. | 168 W (at 24 V DC) |
| | 124 W (at 48 V DC) |
| | 108 W (at 60 V DC) |
| | 52 W (at 110 V DC) |
| | 48 W (at 220 V DC) |
| | 1750 VA (for 250 V AC) |
| Switching capacity | 2 A (at 24 V, DC13) |
| | 0.22 A (at 120 V, DC13) |
| | 0.11 A (at 250 V, DC13) |
| | 3 A (at 24 V, AC15) |
| | 3 A (at 120 V, AC15) |
| | 1.5 A (at 240 V, AC15) |

General

| | |
|------------------------------------------|---------------------------------------|
| Test voltage relay winding/relay contact | 2.5 kV _{rms} (50 Hz, 1 min.) |
| Test voltage relay contact/relay contact | 2 kV _{rms} (50 Hz, 1 min.) |
| Operating mode | 100% operating factor |
| Flammability rating according to UL 94 | V2 (Housing) |
| Mechanical service life | approx. 2×10^7 cycles |
| Mounting position | any |
| Assembly instructions | In rows with zero spacing |

Connection data

| | |
|-----------------|------------|
| Connection name | Input side |
|-----------------|------------|

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Technical data

Connection data

| | |
|-------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Connection method | Screw connection |
| Stripping length | 8 mm |
| Conductor cross section solid | 0.5 mm ² ... 4 mm ² |
| Conductor cross-section solid (2 conductors with same cross section) | 0.5 mm ² ... 2.5 mm ² |
| Conductor cross section flexible | 0.5 mm ² ... 4 mm ² |
| | 0.5 mm ² ... 4 mm ² (Ferrule with plastic sleeve) |
| Conductor cross section flexible (2 conductors with same cross section) | 0.5 mm ² ... 2.5 mm ² |
| | 0.5 mm ² ... 1.5 mm ² (TWIN ferrule with plastic sleeve) |
| Conductor cross section AWG | 20 ... 10 (solid) |
| | 20 ... 12 (flexible) |
| Torque | 0.5 Nm ... 0.6 Nm |

Connection data 2

| | |
|-------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Connection name | Contact side |
| Connection method | Screw connection |
| Stripping length | 8 mm |
| Conductor cross section solid | 0.5 mm ² ... 4 mm ² |
| Conductor cross-section solid (2 conductors with same cross section) | 0.5 mm ² ... 2.5 mm ² |
| Conductor cross section flexible | 0.5 mm ² ... 4 mm ² |
| | 0.5 mm ² ... 4 mm ² (Ferrule with plastic sleeve) |
| Conductor cross section flexible (2 conductors with same cross section) | 0.5 mm ² ... 2.5 mm ² |
| | 0.5 mm ² ... 1.5 mm ² (TWIN ferrule with plastic sleeve) |
| Conductor cross section AWG | 20 ... 10 (solid) |
| | 20 ... 12 (flexible) |
| Torque | 0.5 Nm ... 0.6 Nm |

Standards and Regulations

| | |
|--------------------------|------------------|
| Standards/regulations | DIN EN 50178 |
| Rated insulation voltage | 250 V AC |
| Rated surge voltage | 4 kV |
| Insulation | Basic insulation |
| Pollution degree | 2 |
| Overvoltage category | III |

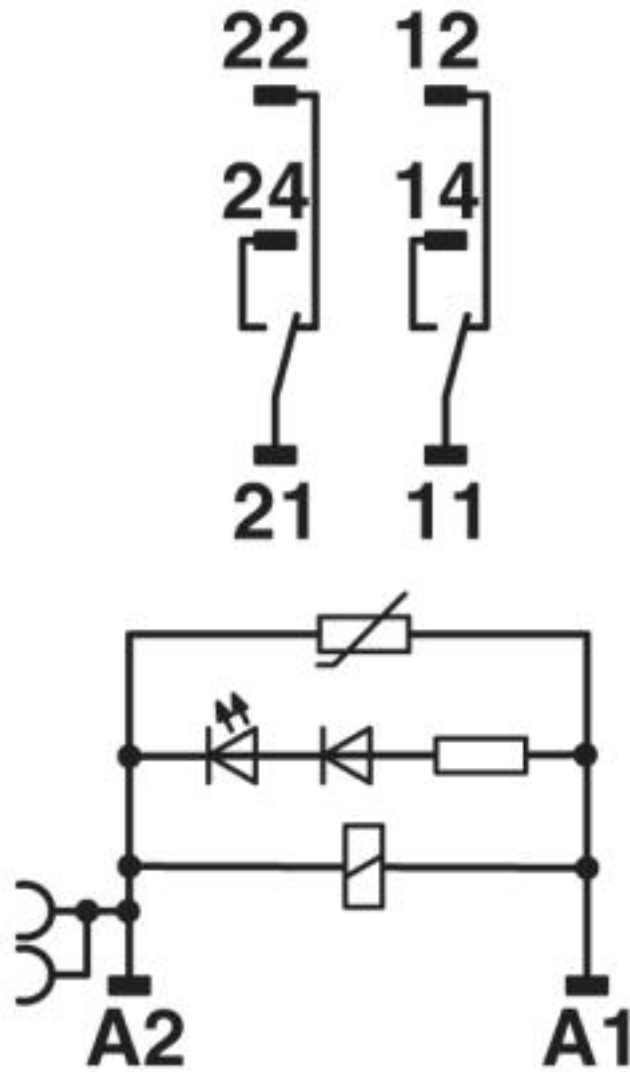
Environmental Product Compliance

| | |
|------------|-----------------------------------------------------------------------------------------------------|
| China RoHS | Environmentally Friendly Use Period = 50 years |
| | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

Drawings

Relay Module - RIF-3-RSC-LV-230AC/2X21 - 2903301

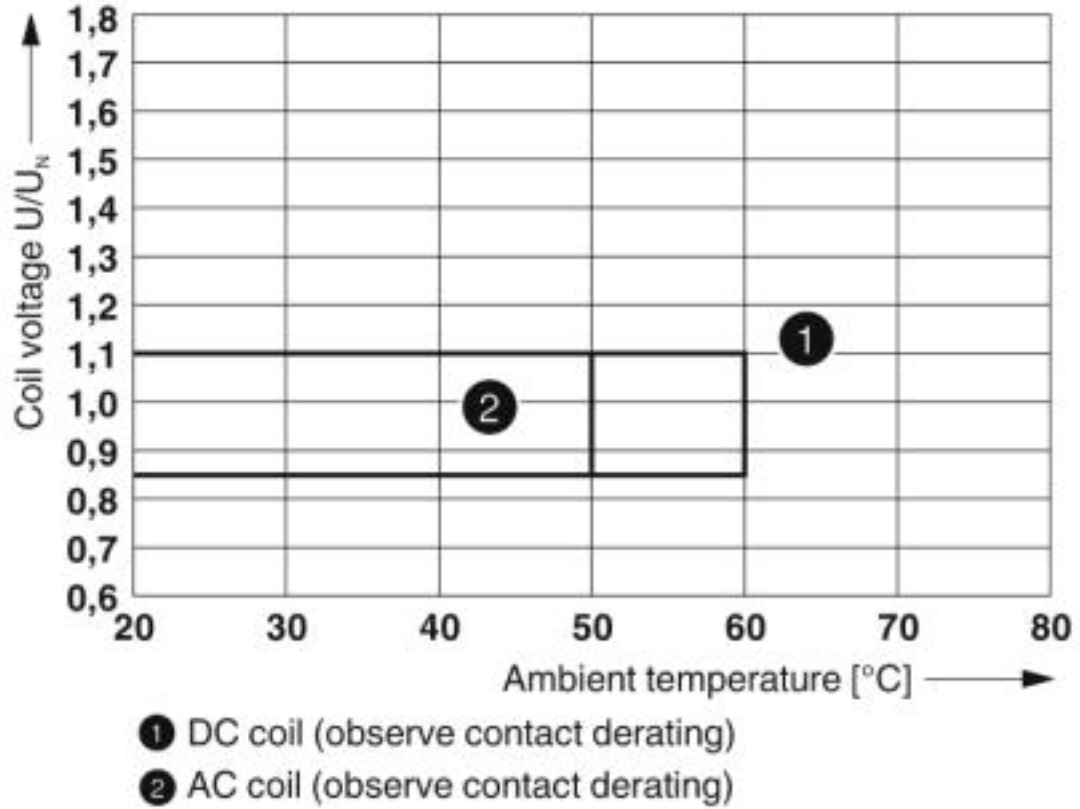
Circuit diagram



AC coils

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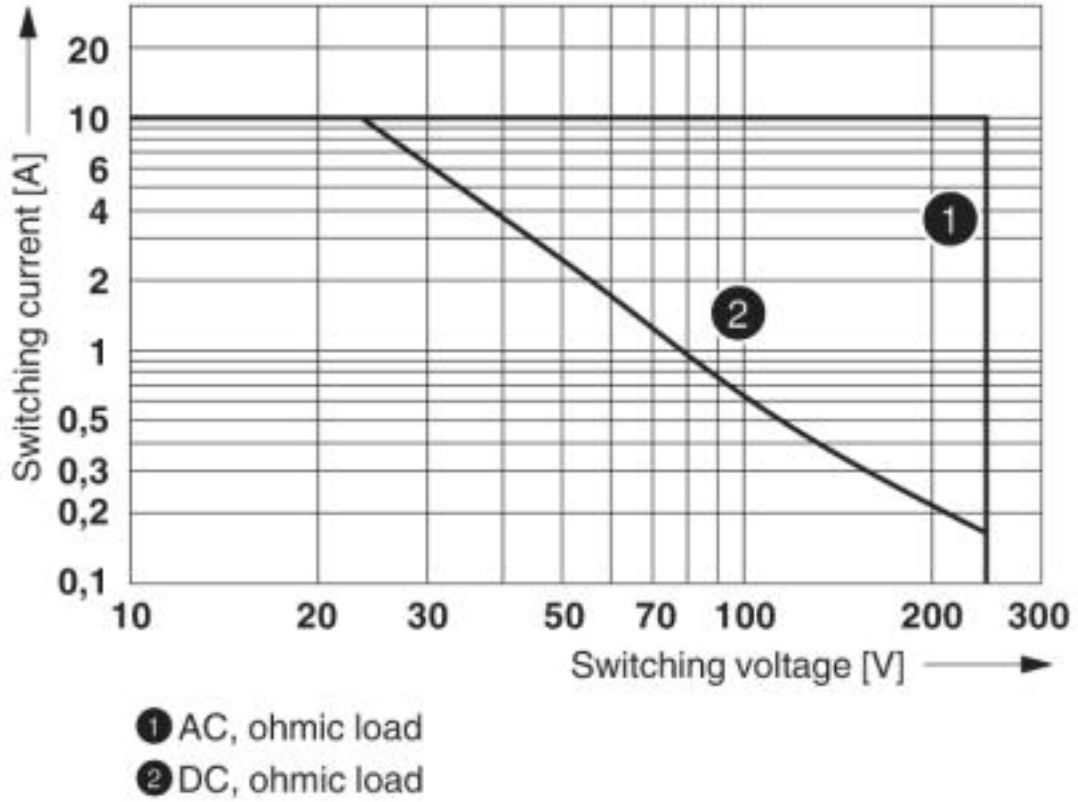
Diagram



Operating voltage range

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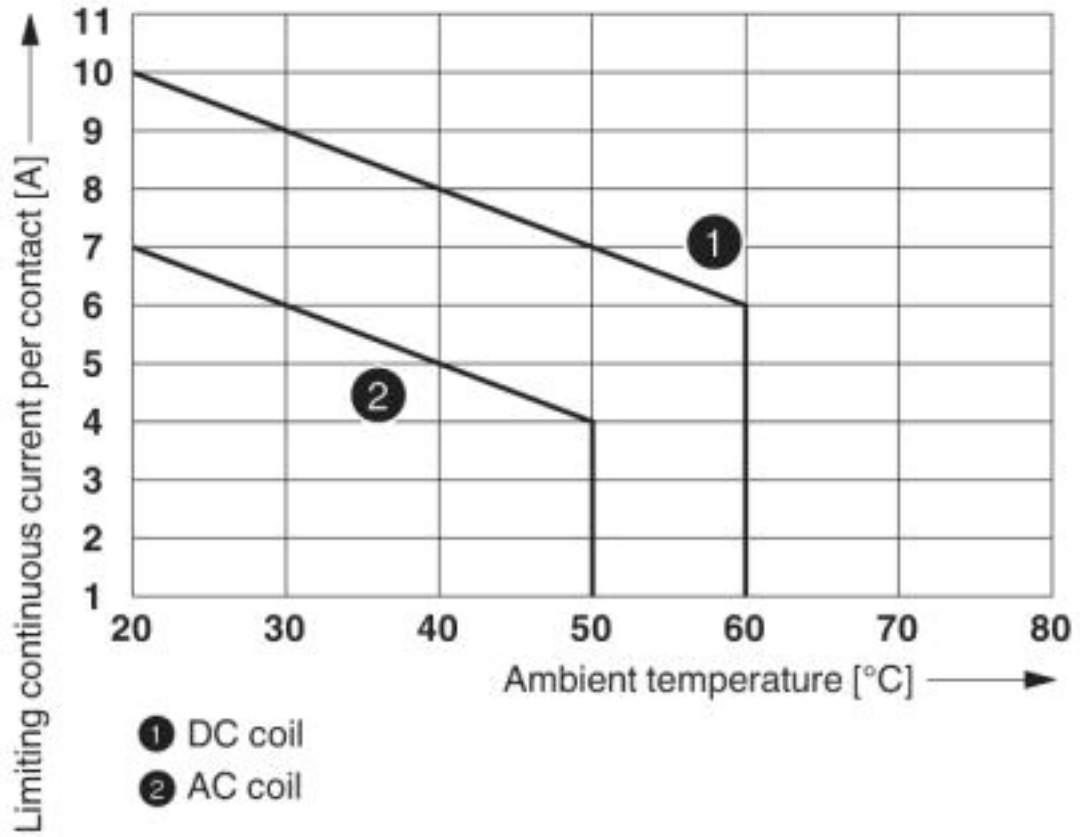
Diagram



Interrupting rating

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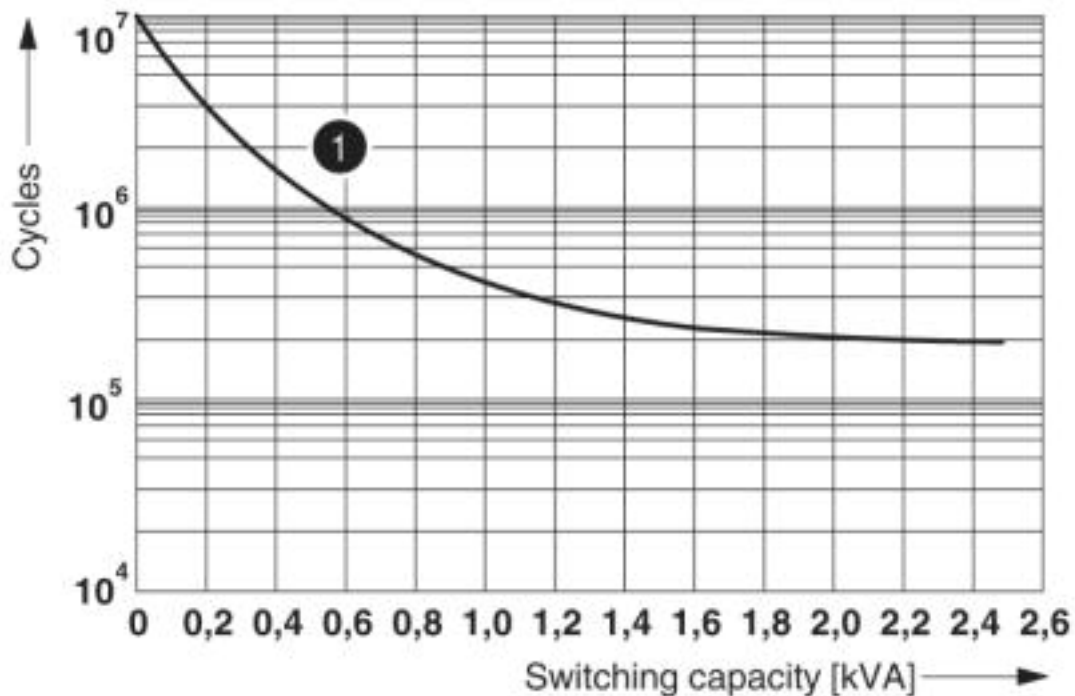
Diagram



Contact derating

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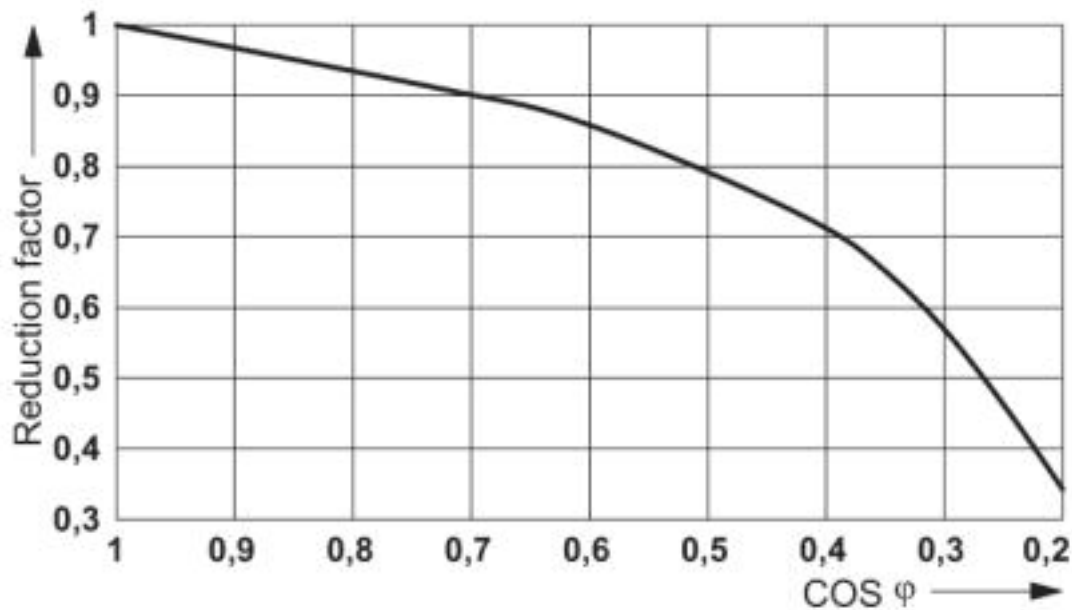
Diagram



① 250 V AC, ohmic load

Electrical service life

Diagram



Service life reduction factor

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Articles in set

Relay base - RIF-3-BSC/2X21 - 2900935



RIF-3... relay base, for octal relay with 2 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

Single relay - REL-OR2/L-230AC/2X21 - 2903692



Pluggable octal relay with power contacts, 2 PDT, test button, mechanical switching position indication, coil voltage 230 V AC

Plug-in module - RIF-V-120-230 UC - 2900948



Plug-in module, for mounting on RIF-1, RIF-2, RIF-3, and RIF-4, with varistor, input voltage: 120 ... 230 V AC/DC $\pm 20\%$

Retaining bracket - RIF-RH-3 - 2900955



Relay retaining bracket, with holder for marking material, suitable for RIF-3 relay base, for octal relay

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 |

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Classifications

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

CSA / EAC

Ex Approvals

Approval details

| | | | |
|-----|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------|
| CSA |  | http://www.csagroup.org/services-industries/product-listing/ | 2607057 |
|-----|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------|

| | | | |
|-----|-------------------------------------------------------------------------------------|--|--------------------------|
| EAC |  | | RU C- DE.A*30.B.01082 |
|-----|-------------------------------------------------------------------------------------|--|--------------------------|

Accessories

Accessories

End block

Relay Module - RIF-3-RSC-LV-230AC/2X21 - 2903301

Accessories

End clamp - CLIPFIX 35 - 3022218



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, width: 9.5 mm, color: gray

Insulating sleeve

Insulating sleeve - MPS-IH WH - 0201663

Insulating sleeve, color: white



Insulating sleeve - MPS-IH RD - 0201676

Insulating sleeve, color: red



Insulating sleeve - MPS-IH BU - 0201689

Insulating sleeve, color: blue



Insulating sleeve - MPS-IH YE - 0201692

Insulating sleeve, color: yellow



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Accessories

Insulating sleeve - MPS-IH GN - 0201702

Insulating sleeve, color: green



Insulating sleeve - MPS-IH GY - 0201728

Insulating sleeve, color: gray



Insulating sleeve - MPS-IH BK - 0201731

Insulating sleeve, color: black



Jumper

Plug-in bridge - FBS 2-6 - 3030336



Plug-in bridge, pitch: 6.2 mm, width: 10.7 mm, number of positions: 2, color: red

Plug-in bridge - FBS 2-6 BU - 3036932



Plug-in bridge, pitch: 6.2 mm, width: 10.7 mm, number of positions: 2, color: blue

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Accessories

Plug-in bridge - FBS 2-6 GY - 3032237



Plug-in bridge, pitch: 6.2 mm, width: 10.7 mm, number of positions: 2, color: gray

Marker carriers

Marker carriers - STP 5-2 - 0800967



Double marker carrier, snaps onto the double-level spring-cage terminal block STTB 2,5, STTB 4, PTTB 2,5, PTTB 4 can be marked with UC-TM 5, ZB 5 or UC-TMF 5, ZBF 5

Terminal marking

Zack marker strip - ZB 5 :UNBEDRUCKT - 1050004



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 5.1 x 10.5 mm, Number of individual labels: 10

Zack marker strip - ZB 15:UNBEDRUCKT - 0811972



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 15.2 mm, lettering field size: 10.5 x 15.1 mm, Number of individual labels: 5

Marker for terminal blocks - UC-TM 16 - 0819217



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 16 mm, lettering field size: 15.45 x 10.5 mm, Number of individual labels: 32

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Accessories

Marker for terminal blocks - UC-TMF 16 - 0819262



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 16 mm, lettering field size: 15.45 x 5.1 mm, Number of individual labels: 32

Test plug terminal block

Test plugs - MPS-MT - 0201744



Test plugs, with solder connection up to 1 mm² conductor cross section, color: gray

Spare parts

Relay base - RIF-3-BSC/2X21 - 2900935



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Accessories

Retaining bracket - RIF-RH-3 - 2900955



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