

Solid-state relay module - PLC-OPT- 48DC/230AC/1 - 2900370

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PLC-INTERFACE, consisting of PLC-BPT.../21 basic terminal block with push-in connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 48 V DC, output: 24 - 253 V AC/0.75 A

Your advantages

- ✓ Slim design
- ✓ Efficient connection to system cabling using V8 adapter
- ✓ RT III sealed solid-state relay
- ✓ Integrated input circuit
- ✓ Functional plug-in bridges
- ✓ Zero voltage switch at AC output
- ✓ High switching power



Key Commercial Data

| | |
|--------------|---|
| Packing unit | 10 pc |
| GTIN |  4 046356 508810 |
| GTIN | 4046356508810 |

Technical data

Note

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

Dimensions

| | |
|--------|--------|
| Width | 6.2 mm |
| Height | 80 mm |
| Depth | 94 mm |

Ambient conditions

| | |
|---|------------------|
| Ambient temperature (operation) | -25 °C ... 60 °C |
| Ambient temperature (storage/transport) | -25 °C ... 70 °C |

Solid-state relay module - PLC-OPT- 48DC/230AC/1 - 2900370

Technical data

Input data

| | |
|--|-----------------------------|
| Nominal input voltage U_N | 48 V DC |
| Input voltage range in reference to U_N | 0.8 ... 1.2 |
| Input voltage range | 38.4 V DC ... 57.6 V DC |
| Switching threshold "0" signal in reference to U_N | ≤ 0.25 |
| Switching threshold "1" signal in reference to U_N | ≥ 0.8 |
| Typical input current at U_N | 9 mA |
| Typical response time | 10 ms (at U_N) |
| Typical turn-off time | 10 ms (at U_N) |
| Operating voltage display | Yellow LED |
| Type of protection | Reverse polarity protection |
| | Free-wheeling diode |
| Protective circuit/component | Polarity protection diode |
| | Damping diode |
| Transmission frequency | 10 Hz |
| Power dissipation for nominal condition | 0.43 W |

Output data

| | |
|--|-----------------------------|
| Output voltage range | 24 V AC ... 253 V AC |
| Limiting continuous current | 0.75 A (see derating curve) |
| Maximum inrush current | 30 A (10 ms) |
| Min. load current | 10 mA |
| Leakage current | < 1 mA (in off state) |
| Max. load value | 4.5 A ² s |
| Voltage drop at max. limiting continuous current | < 1 V |
| Output circuit | 2-wire, floating |
| Type of protection | RCV circuit |

General

| | |
|--|---------------------------|
| Test voltage input/output | 2.5 kV (50 Hz, 1 min.) |
| Mounting position | any |
| Assembly instructions | In rows with zero spacing |
| Operating mode | 100% operating factor |
| Flammability rating according to UL 94 | V0 (Housing) |

Connection data

| | |
|----------------------------------|--|
| Connection name | Input side |
| Connection method | Push-in connection |
| Stripping length | 8 mm |
| Conductor cross section solid | 0.14 mm ² ... 2.5 mm ² |
| Conductor cross section flexible | 0.14 mm ² ... 2.5 mm ² |
| Conductor cross section AWG | 26 ... 14 |

Solid-state relay module - PLC-OPT- 48DC/230AC/1 - 2900370

Technical data

Connection data 2

| | |
|----------------------------------|--|
| Connection name | Output side |
| Connection method | Push-in connection |
| Stripping length | 8 mm |
| Conductor cross section solid | 0.14 mm ² ... 2.5 mm ² |
| Conductor cross section flexible | 0.14 mm ² ... 2.5 mm ² |
| Conductor cross section AWG | 26 ... 14 |

Standards and Regulations

| | |
|----------------------------------|-----------------------|
| Connection in acc. with standard | CUL |
| Designation | Standards/regulations |
| Standards/regulations | IEC 60664 |
| | IEC 60664A |
| | DIN VDE 0110 |
| Insulation | Basic insulation |
| Pollution degree | 2 |
| Overvoltage category | III |

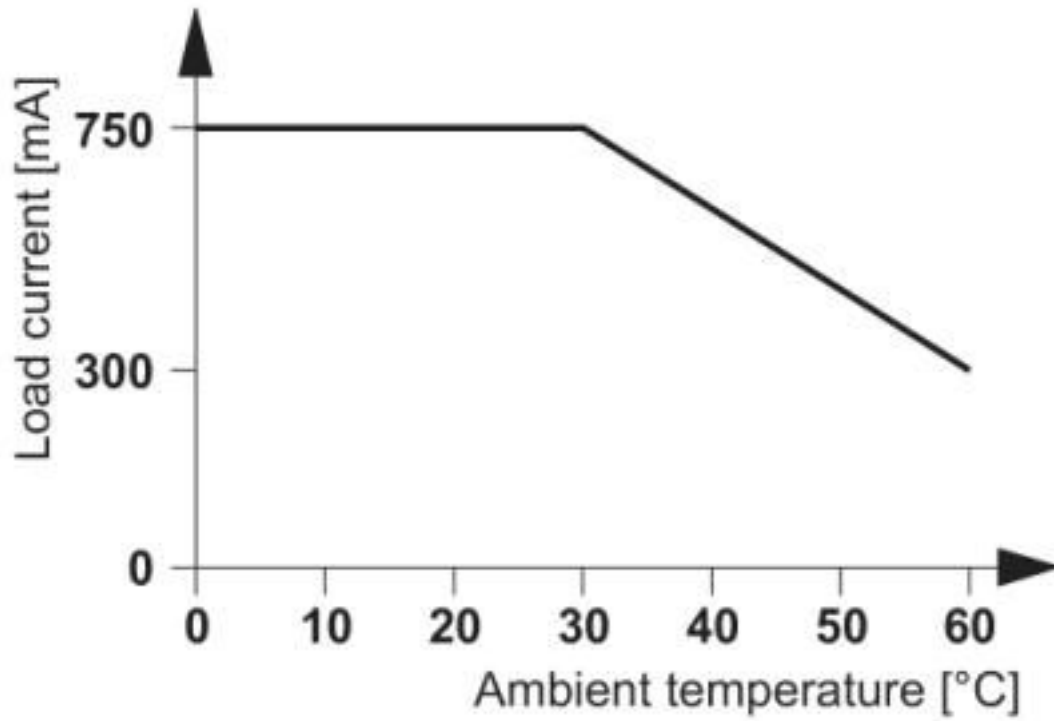
Environmental Product Compliance

| | |
|------------|---|
| REACH SVHC | Lead 7439-92-1 |
| China RoHS | Environmentally Friendly Use Period = 50 years |
| | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

Drawings

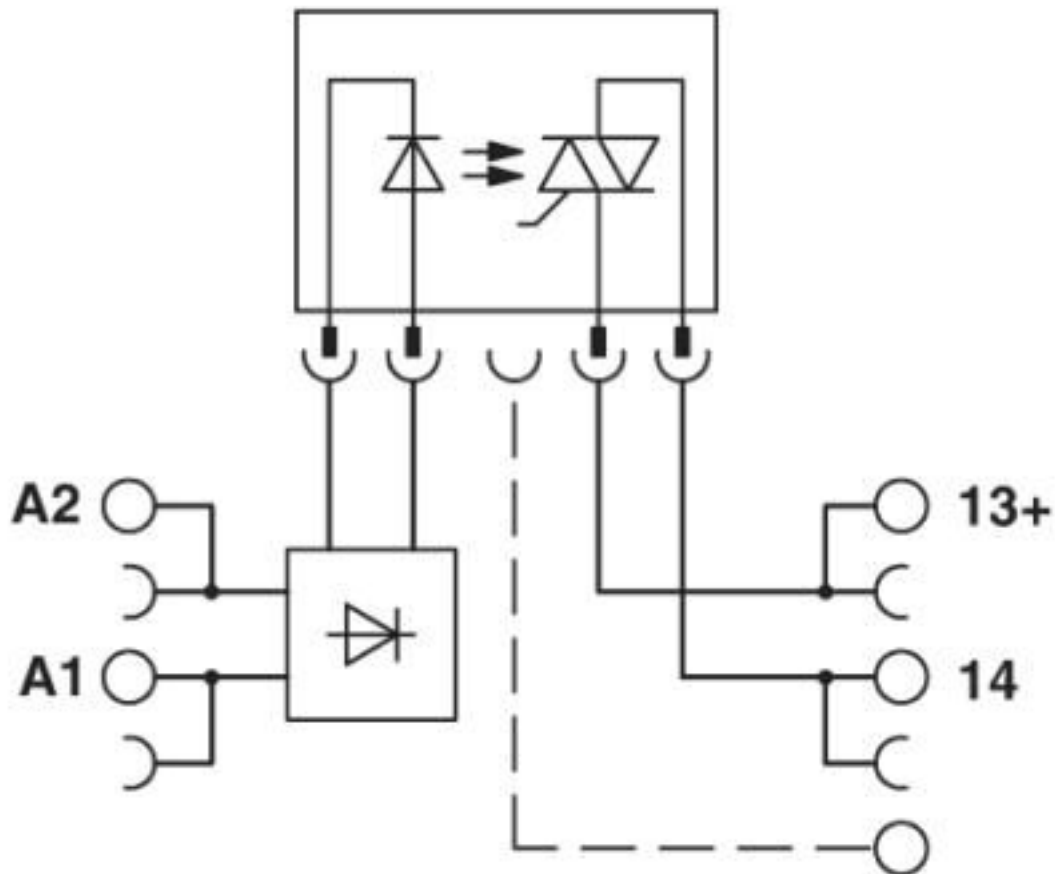
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Diagram



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Circuit diagram



Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27371604 |
| eCl@ss 4.0 | 27371100 |
| eCl@ss 4.1 | 27371100 |
| eCl@ss 5.0 | 27371000 |
| eCl@ss 5.1 | 27371000 |
| eCl@ss 6.0 | 27371600 |
| eCl@ss 7.0 | 27371604 |
| eCl@ss 8.0 | 27371604 |
| eCl@ss 9.0 | 27371604 |

ETIM

| | |
|----------|----------|
| ETIM 2.0 | EC001504 |
| ETIM 3.0 | EC001504 |
| ETIM 4.0 | EC001504 |
| ETIM 5.0 | EC001504 |

Solid-state relay module - PLC-OPT- 48DC/230AC/1 - 2900370

Classifications

ETIM

| | |
|----------|----------|
| ETIM 6.0 | EC001504 |
| ETIM 7.0 | EC001504 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 30211916 |
| UNSPSC 7.0901 | 39121542 |
| UNSPSC 11 | 39121542 |
| UNSPSC 12.01 | 39121542 |
| UNSPSC 13.2 | 39122326 |
| UNSPSC 18.0 | 39122326 |
| UNSPSC 19.0 | 39122326 |
| UNSPSC 20.0 | 39122326 |
| UNSPSC 21.0 | 39122326 |

Approvals

Approvals

Approvals

DNV GL / UL Listed / UL Recognized / cUL Recognized / cUL Listed / EAC / EAC / cULus Recognized / cULus Listed

Ex Approvals

Approval details

| | | | |
|--------|---|---|---------------|
| DNV GL |  | https://approvalfinder.dnvgl.com/ | TAE0000196-03 |
|--------|---|---|---------------|

| | | | |
|-----------|---|---|---------------|
| UL Listed |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 172140 |
|-----------|---|---|---------------|

| | | | |
|---------------|---|---|---------------|
| UL Recognized |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 238705 |
|---------------|---|---|---------------|

| | | | |
|----------------|---|---|---------------|
| cUL Recognized |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 238705 |
|----------------|---|---|---------------|

Solid-state relay module - PLC-OPT- 48DC/230AC/1 - 2900370

Approvals

| | | | |
|------------|--|---|---------------|
| cUL Listed | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 172140 |
|------------|--|---|---------------|

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

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

| | | | |
|------------------|--|--|--|
| cULus Recognized | | | |
|------------------|--|--|--|

| | | | |
|--------------|--|--|--|
| cULus Listed | | | |
|--------------|--|--|--|

Accessories

Accessories

Bridge

Continuous plug-in bridge - FBST 500-PLC RD - 2966786



Continuous plug-in bridge, length: 500 mm, color: red

Continuous plug-in bridge - FBST 500-PLC BU - 2966692



Continuous plug-in bridge, length: 500 mm, color: blue

Solid-state relay module - PLC-OPT- 48DC/230AC/1 - 2900370

Accessories

Continuous plug-in bridge - FBST 500-PLC GY - 2966838



Continuous plug-in bridge, length: 500 mm, color: gray

Single plug-in bridge - FBST 6-PLC RD - 2966236



Single plug-in bridge, length: 6 mm, number of positions: 2, color: red

Single plug-in bridge - FBST 6-PLC BU - 2966812



Single plug-in bridge, length: 6 mm, number of positions: 2, color: blue

Single plug-in bridge - FBST 6-PLC GY - 2966825



Single plug-in bridge, length: 6 mm, number of positions: 2, color: gray

Single plug-in bridge - FBST 8-PLC GY - 2967688



Single plug-in bridge, length: 8 mm, number of positions: 2, color: gray

DIN rail

Solid-state relay module - PLC-OPT- 48DC/230AC/1 - 2900370

Accessories

DIN rail perforated - NS 35/ 7,5 PERF 2000MM - 0801733



DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/ 7,5 UNPERF 2000MM - 0801681



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

DIN rail perforated - NS 35/ 7,5 WH PERF 2000MM - 1204119



DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/ 7,5 WH UNPERF 2000MM - 1204122



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/ 7,5 AL UNPERF 2000MM - 0801704



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Aluminum, uncoated, length: 2000 mm, color: silver

Solid-state relay module - PLC-OPT- 48DC/230AC/1 - 2900370

Accessories

DIN rail perforated - NS 35/ 7,5 ZN PERF 2000MM - 1206421



DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/ 7,5 ZN UNPERF 2000MM - 1206434



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/ 7,5 CU UNPERF 2000MM - 0801762



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Copper, uncoated, length: 2000 mm, color: copper-colored

End cap - NS 35/ 7,5 CAP - 1206560



DIN rail end piece, for DIN rail NS 35/7.5

DIN rail perforated - NS 35/15 PERF 2000MM - 1201730



DIN rail perforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

Solid-state relay module - PLC-OPT- 48DC/230AC/1 - 2900370

Accessories

DIN rail, unperforated - NS 35/15 UNPERF 2000MM - 1201714



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

DIN rail perforated - NS 35/15 WH PERF 2000MM - 0806602



DIN rail perforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/15 WH UNPERF 2000MM - 1204135



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/15 AL UNPERF 2000MM - 1201756



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Aluminum, uncoated, length: 2000 mm, color: silver

DIN rail perforated - NS 35/15 ZN PERF 2000MM - 1206599



DIN rail perforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver

Solid-state relay module - PLC-OPT- 48DC/230AC/1 - 2900370

Accessories

DIN rail, unperforated - NS 35/15 ZN UNPERF 2000MM - 1206586



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/15 CU UNPERF 2000MM - 1201895



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Copper, uncoated, length: 2000 mm, color: copper-colored

End cap - NS 35/15 CAP - 1206573



DIN rail end piece, for DIN rail NS 35/15

DIN rail, unperforated - NS 35/15-2,3 UNPERF 2000MM - 1201798



DIN rail, unperforated, Standard profile 2.3 mm, width: 35 mm, height: 15 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

Labeled terminal marker

Zack marker strip - ZB 6 CUS - 0824992



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

Solid-state relay module - PLC-OPT- 48DC/230AC/1 - 2900370

Accessories

Zack marker strip - ZB 6,LGS:FORTL.ZAHLEN - 1051016



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 491 ... 500, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

Zack marker strip - ZB 6,QR:FORTL.ZAHLEN - 1051029



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, Printed vertically: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 491 ... 500, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

Zack marker strip - ZB 6,LGS:GLEICHE ZAHLEN - 1051032



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, printed horizontally: Identical numbers 1 or 2, etc. up to 100, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

Marker for terminal blocks - ZB 6,LGS:L1-N,PE - 1051414



Marker for terminal blocks, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, horizontal: L1, L2, L3, N, PE, L1, L2, L3, N, PE, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

Marker for terminal blocks - ZB 6,LGS:U-N - 1051430



Marker for terminal blocks, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, printed horizontally: U, V, W, N, GND, U, V, W, N, GND, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

Solid-state relay module - PLC-OPT- 48DC/230AC/1 - 2900370

Accessories

Marker for terminal blocks - UC-TM 6 CUS - 0824589



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 80

Marker for terminal blocks - UCT-TM 6 CUS - 0829602



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 60

Partition plate

Separating plate - PLC-ATP BK - 2966841



Separating plate, 2 mm thick, required at the start and end of a PLC terminal strip. Furthermore, it is used for: visual separation of groups, safe isolation of different voltages of neighboring PLC relays in acc. with DIN VDE 0106-101, isolation

Power module

Power terminal block - PLC-ESK GY - 2966508



Power terminal block, for the input of up to four potentials, for mounting on NS 35/7.5

Screwdriver tools

Screwdriver - SZF 1-0,6X3,5 - 1204517



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

Terminal marking

Solid-state relay module - PLC-OPT- 48DC/230AC/1 - 2900370

Accessories

Zack marker strip - ZB 6:UNBEDRUCKT - 1051003



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: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

Marker for terminal blocks - UC-TM 6 - 0818085



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: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 80

Marker for terminal blocks - UCT-TM 6 - 0828736



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 60

Spare parts

Relay base - PLC-BPT- 48DC/21 - 2900447



6.2 mm PLC basic terminal block with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 48 V DC

Miniature solid-state relay - OPT-24DC/230AC/ 1 - 2967950



Plug-in miniature solid-state relay, power solid-state relay, 1 N/O contact, input: 24 V DC, output: 24 - 253 V AC/0.75 A

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