# QUINT-DIODE/40 - Redundancy module

2938963

https://www.phoenixcontact.com/gb/products/2938963

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Redundancy module QUINT-DIODE/40

## Commercial data

| | |
|---|---|
| Item number | 2938963 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | CMRP43 |
| Product key | CMRP43 |
| GTIN | 4017918929534 |
| Weight per piece (including packing) | 683 g |
| Weight per piece (excluding packing) | 600 g |
| Customs tariff number | 85049090 |
| Country of origin | CN |

# Technical data

## Input data

DC operation

| | |
|---|---|
| Input voltage | 24 V DC |
| Nominal input voltage range | 24 V DC |
| Input voltage range | 0 V DC ... 30 V DC |
| Input voltage range DC | 0 V DC ... 30 V DC |
| Voltage type of supply voltage | DC |
| Reverse polarity protection | yes, < 60 V |
| Nominal input current ($I_N$) | 2x 20 A |
| | 1x 40 A |
| Maximum current $I_{max}$ | 2x 19 A (6 mm² at 40°C) |
| | 1x 39 A (6 mm² at 40°C) |
| | 2x 16 A (6 mm² at 60°C) |
| | 1x 32 A (6 mm² at 60°C) |
| | 2x 27 A (10 mm² at 40°C) |
| | 1x 54 A (10 mm² at 40°C) |
| | 2x 21 A (10 mm² at 60°C) |
| | 1x 43 A (10 mm² at 60°C) |
| | 2x 30 A (16 mm² at 40 °C) |
| | 1x 60 A (16 mm² at 40 °C) |
| | 2x 24 A (16 mm² at 60°C) |
| | 1x 48 A (16 mm² at 60°C) |
| Transient surge protection | Transil diode |
| Voltage drop, input/output | 0.5 V |

## Output data

| | |
|---|---|
| Efficiency | > 97 % |
| Nominal output voltage | 24 V DC |
| Nominal output current ($I_N$) | 40 A |
| Power loss nominal load max. | 20 W |
| Connection in series | no |

## Connection data

Input

| | |
|---|---|
| Connection method | Screw connection |
| Conductor cross-section, rigid min. | 0.5 mm² |
| Conductor cross-section, rigid max. | 16 mm² |
| Conductor cross-section flexible min. | 0.5 mm² |
| Conductor cross-section flexible max. | 10 mm² |
| Conductor cross-section AWG min. | 20 |

| | |
|---|---|
| Conductor cross-section AWG max. | 6 |
| Stripping length | 10 mm |
| Screw thread | M4 |

Output

| | |
|---|---|
| Connection method | Screw connection |
| Conductor cross-section, rigid min. | 0.5 mm² |
| Conductor cross-section, rigid max. | 16 mm² |
| Conductor cross-section flexible min. | 0.5 mm² |
| Conductor cross-section flexible max. | 10 mm² |
| Conductor cross-section AWG min. | 20 |
| Conductor cross-section AWG max. | 6 |
| Stripping length | 10 mm |
| Screw thread | M4 |

## Electrical properties

| | |
|---|---|
| Insulation voltage output / PE | 1 kV |
| Insulation voltage input / PE | 1 kV |
| Insulation voltage input, output / housing | 1 kV |

## Product properties

| | |
|---|---|
| Product type | Redundancy module |
| Product family | QUINT DIODE |
| MTBF (IEC 61709, SN 29500) | 28571428 h (40 °C) |
| LED | no |

Insulation characteristics

| | |
|---|---|
| Protection class | II (in closed control cabinet) |
| Degree of pollution | 2 |

## Dimensions

| | |
|---|---|
| Width | 62 mm |
| Height | 84 mm |
| Depth | 102 mm |
| Horizontal pitch | 3.4 HP |

Installation dimensions

| | |
|---|---|
| Installation distance right/left | 5 mm / 5 mm |
| Installation distance top/bottom | 50 mm / 50 mm |

## Mounting

| | |
|---|---|
| Mounting type | DIN rail mounting |
| Assembly note | alignable: horizontal 20 mm, vertical 50 mm |
| Mounting position | horizontal and vertical DIN rail NS 35, EN 60715 |

## Material specifications

| | |
|---|---|
| Housing material | Metal |
| Type of housing | AlMg (hood), GD-ZnAlCu (cooling unit) |

## Environmental and real-life conditions

### Ambient conditions

| | |
|---|---|
| Degree of protection | IP20 |
| Ambient temperature (operation) | -25 °C ... 70 °C (> 60 °C derating, Ex ⏚ ⏚ ⏚ ⏚ ⏚ ⏚°C) |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Max. permissible relative humidity (operation) | ≤ 95 % (at 25 °C, non-condensing) |

## Standards and regulations

| | |
|---|---|
| Standard – Electronic equipment for use in electrical power installations and their assembly into electrical power installations | EN 50178/VDE 0160 (PELV) |
| Standard - Electrical safety | EN 60950-1/VDE 0805 (SELV) |
| Standards/specifications | EN 60079-0 |

## Approvals

| | |
|---|---|
| Shipbuilding approval | DNV GL (EMC A), ABS |
| UL approvals | UL/C-UL listed UL 508 |
| | UL/C-UL Recognized UL 60950-1 |
| | UL/C-UL Listed UL 1604 Class I, Division 2, Groups A, B, C, D |

### Conformity/Approvals

| | |
|---|---|
| ATEX | Ex II 3G Ex nA IIC T4 Gc |
| | KEMA 03 ATEX 1197X |

## EMC data

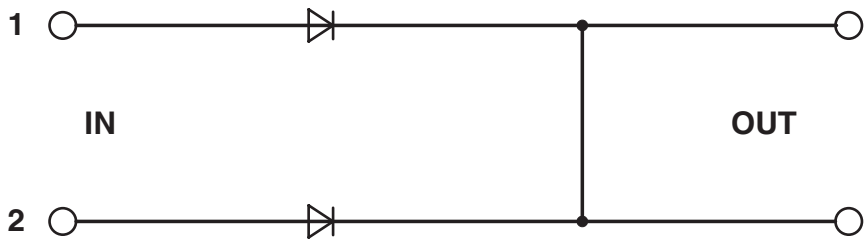
| | |
|---|---|
| Electromagnetic compatibility | Conformance with EMC Directive 2014/30/EU |
| EMC requirements for noise emission | EN 61000-6-3 |
| | EN 61000-6-4 |
| EMC requirements for noise immunity | EN 61000-6-1 |
| | EN 61000-6-2 |

### Noise emission

| | |
|---|---|
| Standards/regulations | EN 55011 |

## Drawings

Block diagram



## Classifications

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 32151504 |

## Environmental product compliance

EU RoHS

| | |
|---|---|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 7(a), 7(c)-I |

China RoHS

| | |
|---|---|
| Environment friendly use period (EFUP) | EFUP-25 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

EU REACH SVHC

| | |
|---|---|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1) |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