


TRIO-DIODE/48DC/2X10/1X20

Order No.: 2866527

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Redundancy module with function monitoring, 48 V DC, 2x 10 A, 1x 20 A

**Commercial data**

| | |
|--------------------------|--|
| EAN |  4 046356 562973 |
| sales group | H009 |
| Pack | 1 Pcs. |
| Customs tariff | 85044082 |
| Gross weight in pieces | 0.5327 KG |
| Net weight per piece | 0.40 KG |
| Catalog page information | Page 209 (CAT-6-2013) |

Product notesWEEE/RoHS-compliant since:
02/02/2010

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Product description

TRIO DIODE is the DIN-rail mountable redundancy module from the TRIO POWER product range.

Using the redundancy module, it is possible for two power supply units of the same type connected in parallel on the output side to increase performance or for redundancy to be 100% isolated from one another.

Redundant systems are used in systems that place particularly high demands on operational reliability. The connected power supply units must be large enough that the total current requirements of all loads can be met by one power supply unit. The redundant structure of the power supply therefore ensures long-term, permanent system availability.

In the event of an internal device fault or failure of the mains power supply on the primary side, the other device automatically takes over the entire power supply of the loads without interruption. The floating signal contact and LED immediately indicate the loss of redundancy.

| Technical data | |
|--|---|
| Dimensions | |
| Width | 32 mm |
| Height | 130 mm |
| Depth | 115 mm |
| Input data | |
| Nominal input voltage | 48 V DC |
| Nominal input voltage range | 30 V DC ... 56 V DC |
| Nominal input current I_N | 2x 10 A (-25°C ... 55°C) |
| | 1x 20 A (-25°C ... 55°C) |
| Maximum current I_{max} | 2x 15 A (-25°C ... 40°C) |
| | 1x 30 A (-25°C ... 40°C) |
| Output data | |
| Output current | 20 A (Increasing power) |
| | 10 A (Redundancy) |
| Derating | 55 °C ... 70 °C (2.5%/K) |
| Maximum power dissipation NO-Load | 7 W ($I_{OUT} = 10$ A) |
| Power loss nominal load max. | 14 W ($I_{OUT} = 20$ A) |
| General | |
| Net weight | 0.37 kg |
| Efficiency | > 97 % |
| Degree of protection | IP20 |
| Protection class | III |
| MTBF (IEC 61709, SN 29500) | > 10000000 h (According to EN 29500) |
| Ambient temperature (operation) | -25 °C ... 70 °C (> 55° C derating) |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Max. permissible relative humidity (operation) | ≤ 95 % (at 25 °C, no condensation) |
| Mounting position | horizontal DIN rail NS 35, EN 60715 |
| Assembly instructions | Can be aligned: Horizontally 0 mm, vertically 50 mm |
| Electromagnetic compatibility | Conformance with EMC Directive 2004/108/EC |
| Low Voltage Directive | Conformance with LV directive 2006/95/EC |

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|--|--|
| Standard – Electrical equipment of machines | EN 60204 |
| Standard - Electrical safety | EN 60950-1/VDE 0805 (SELV) |
| Standard – Electronic equipment for use in electrical power installations and their assembly into electrical power installations | EN 50178/VDE 0160 (PELV) |
| Standard – Safety extra-low voltage | IEC 60950-1 (SELV) and EN 60204 (PELV) |
| Standard - Safe isolation | DIN VDE 0100-410 DIN VDE 0106-1010 |
| Standard – Protection against electric shock | DIN 57100-410 |
| Standard – Protection against shock currents, basic requirements for protective separation in electrical equipment | DIN VDE 0106-101 |
| UL approvals | UL/C-UL listed UL 508 UL/C-UL Recognized UL 60950 |

Connection data, input

| | |
|--|---------------------|
| Connection method | Screw connection |
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 2.5 mm ² |
| Conductor cross section stranded min. | 0.2 mm ² |
| Conductor cross section stranded max. | 2.5 mm ² |
| Conductor cross section AWG/kcmil min. | 24 |
| Conductor cross section AWG/kcmil max | 14 |
| Stripping length | 9 mm |
| Screw thread | M2,5 |

Connection data, output

| | |
|--|---------------------|
| Connection method | Screw connection |
| Conductor cross section solid min. | 0.5 mm ² |
| Conductor cross section solid max. | 6 mm ² |
| Conductor cross section stranded min. | 0.5 mm ² |
| Conductor cross section stranded max. | 4 mm ² |
| Conductor cross section AWG/kcmil min. | 20 |
| Conductor cross section AWG/kcmil max | 10 |
| Stripping length | 14 mm |

Signaling

| | |
|-------------|------------------------|
| Output name | Floating redundancy OK |
|-------------|------------------------|

| | |
|--|---|
| Output description | Contact closed when U_{IN1} & $U_{IN2} > 28$ V |
| Maximum switching voltage | 30 V AC/DC |
| Maximum inrush current | ≤ 100 mA (short-circuit resistant) |
| Status display | LED redundancy OK |
| Note on status display | U_{IN1} & $U_{IN2} > 28$ V: LED lights up green |
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 2.5 mm ² |
| Conductor cross section stranded min. | 0.2 mm ² |
| Conductor cross section stranded max. | 2.5 mm ² |
| Conductor cross section AWG/kcmil min. | 24 |
| Conductor cross section AWG/kcmil max | 14 |
| Tightening torque, min | 0.4 Nm |
| Tightening torque max | 0.5 Nm |
| Screw thread | M2,5 |

Certificates / Approvals



Certification

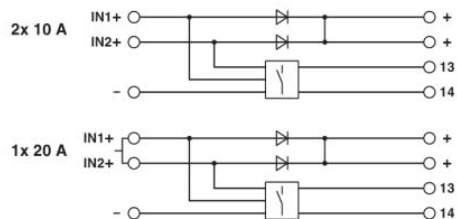
cULus Listed, cULus Recognized

Certifications applied for:

Certification Ex:

Drawings

Block diagram



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