

## Redundancy module - TRIO-DIODE/48DC/2X10/1X20 - 2866527

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://download.phoenixcontact.com>)



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

### 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.



### Key commercial data

|                      |   |
|----------------------|---|
| Packing unit         | 1 PCE   |
| GTIN                 | <br>4 046356 562973 |
| Custom tariff number | 85044082  |
| Country of origin    | CHINA   |

### Technical data

#### Dimensions

|        |        |
|--------|--------|
| Width  | 32 mm  |
| Height | 130 mm |
| Depth  | 115 mm |

#### Ambient conditions

|   |                                     |
|---|-------------------------------------|
| Degree of protection                    | IP20                                |
| Ambient temperature (operation)         | -25 °C ... 70 °C (> 55° C derating) |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C                    |

# Redundancy module - TRIO-DIODE/48DC/2X10/1X20 - 2866527

## Technical data

### Ambient conditions

|  |                                    |
|--|------------------------------------|
| Max. permissible relative humidity (operation) | ≤ 95 % (at 25 °C, no condensation) |
|--|------------------------------------|

### Input data

|                                      |                          |
|--------------------------------------|--------------------------|
| Nominal input voltage                | 48 V DC                  |
| Nominal input voltage range          | <p></p>                  |
|                                      | 30 V DC ... 56 V DC      |
| Input voltage range DC               | <p></p>                  |
| Nominal input current I <sub>N</sub> | 2x 10 A (-25°C ... 55°C) |
|                                      | 1x 20 A (-25°C ... 55°C) |
| Maximum current I <sub>max</sub>     | 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 <sub>OUT</sub> = 10 A)  |
| Power loss nominal load max.      | 14 W (I <sub>OUT</sub> = 20 A) |

### General

|  |   |
|--|---|
| Net weight   | 0.37 kg   |
| Efficiency   | > 97 %  |
| Protection class   | III   |
| MTBF (IEC 61709, SN 29500)   | > 10000000 h (According to EN 29500)                |
| 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            |
| 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                               |

# Redundancy module - TRIO-DIODE/48DC/2X10/1X20 - 2866527

## Technical data

### General

|  |                             |
|--|-----------------------------|
|  | UL/C-UL Recognized UL 60950 |
|--|-----------------------------|

### Connection data, input

|  |                     |
|--|---------------------|
| Connection method                      | Screw connection    |
| Conductor cross section solid min.     | 0.2 mm <sup>2</sup> |
| Conductor cross section solid max.     | 2.5 mm <sup>2</sup> |
| Conductor cross section stranded min.  | 0.2 mm <sup>2</sup> |
| Conductor cross section stranded max.  | 2.5 mm <sup>2</sup> |
| 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 <sup>2</sup> |
| Conductor cross section solid max.     | 6 mm <sup>2</sup>   |
| Conductor cross section stranded min.  | 0.5 mm <sup>2</sup> |
| Conductor cross section stranded max.  | 4 mm <sup>2</sup>   |
| 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                 | $\leq 100$ 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 <sup>2</sup>                               |
| Conductor cross section solid max.     | 2.5 mm <sup>2</sup>                               |
| Conductor cross section stranded min.  | 0.2 mm <sup>2</sup>                               |
| Conductor cross section stranded max.  | 2.5 mm <sup>2</sup>                               |
| 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  |

# Redundancy module - TRIO-DIODE/48DC/2X10/1X20 - 2866527

## Technical data

### Signaling

|              |      |
|--------------|------|
| Screw thread | M2,5 |
|--------------|------|

## Classifications

### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27250311 |
| eCl@ss 4.1 | 27250311 |
| eCl@ss 5.0 | 27242213 |
| eCl@ss 5.1 | 27242213 |
| eCl@ss 6.0 | 27049002 |
| eCl@ss 7.0 | 27049002 |
| eCl@ss 8.0 | 27049002 |

### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001039 |
| ETIM 4.0 | EC002540 |
| ETIM 5.0 | EC002540 |

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211502 |
| UNSPSC 7.0901 | 39121004 |
| UNSPSC 11     | 39121004 |
| UNSPSC 12.01  | 39121004 |
| UNSPSC 13.2   | 39121004 |

## Approvals

### Approvals

---

#### Approvals

UL Recognized / UL Listed / cUL Recognized / cUL Listed / cULus Recognized / cULus Listed

---

#### Ex Approvals

---

#### Approvals submitted

---

# Redundancy module - TRIO-DIODE/48DC/2X10/1X20 - 2866527

## Approvals

### Approval details

UL Recognized

UL Listed

cUL Recognized

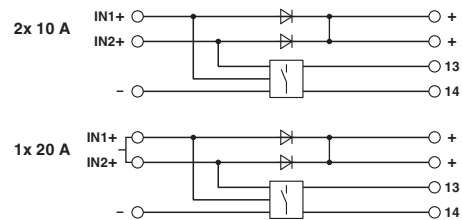
cUL Listed

cULus Recognized

cULus Listed

## Drawings

Block diagram





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.