

## Diode - TRIO2-DIODE/12-24DC/2X20/1X40 - 2907379

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://phoenixcontact.com/download>)



Redundancy module, 12 V - 24 V DC, 2 x 20 A, 1 x 40 A

### Product Description

A safe redundant system is the result of the parallel connection of two power supply units which are decoupled from one another. To further increase system availability, TRIO DIODE provides the solution: decoupling with diode.

### Why buy this product

- ✓ Quick and easy installation, thanks to Push-in connection technology
- ✓ Save energy
- ✓ Redundant wiring up to the load
- ✓ Permanent monitoring of redundancy
- ✓ Consistent redundancy up to the load



### Key Commercial Data

|                                      |                                                                                                         |
|--------------------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit                         | 1 STK                                                                                                   |
| GTIN                                 | <br>4 055626 198279 |
| GTIN                                 | 4055626198279                                                                                           |
| Weight per Piece (excluding packing) | 540.000 g                                                                                               |
| Custom tariff number                 | 85049091                                                                                                |
| Country of origin                    | China                                                                                                   |

### Technical data

#### Dimensions

|        |        |
|--------|--------|
| Width  | 41 mm  |
| Height | 130 mm |

# Diode - TRIO2-DIODE/12-24DC/2X20/1X40 - 2907379

## Technical data

### Dimensions

|       |        |
|-------|--------|
| Depth | 115 mm |
|-------|--------|

### Ambient conditions

|                                                |                                              |
|------------------------------------------------|----------------------------------------------|
| Degree of protection                           | IP20                                         |
| Ambient temperature (operation)                | -25 °C ... 70 °C (> 60 °C Derating: 2.5 %/K) |
| Ambient temperature (storage/transport)        | -40 °C ... 85 °C                             |
| Max. permissible relative humidity (operation) | ≤ 95 % (at 25 °C, non-condensing)            |
| Climatic class                                 | 3K3 (in acc. with EN 60721)                  |
| Degree of pollution                            | 2                                            |

### Input data

|                             |                            |
|-----------------------------|----------------------------|
| Nominal input voltage range | 12 V DC ... 24 V DC        |
| Input voltage range         | 10 V DC ... 30 V DC        |
| Nominal input current       | 2x 20 A (-25 °C ... 60 °C) |
|                             | 1x 40 A (-25 °C ... 60 °C) |
| Maximum input current       | 2x 25 A (-25 °C ... 40 °C) |
|                             | 1x 50 A (-25 °C ... 40 °C) |
| Nominal input current       | 2x 20 A (-25 °C ... 60 °C) |
|                             | 1x 40 A (-25 °C ... 60 °C) |

### Output data

|                                  |                          |
|----------------------------------|--------------------------|
| Nominal output current ( $I_N$ ) | 20 A                     |
| Derating                         | 60 °C ... 70 °C (2.5%/K) |
| Connection in series             | No                       |
| Power loss nominal load max.     | 20 W ( $I_{OUT} = 20$ A) |

### General

|                            |                                                |
|----------------------------|------------------------------------------------|
| Net weight                 | 0.4 kg                                         |
| Efficiency                 | > 97 %                                         |
| Protection class           | III                                            |
| Degree of protection       | IP20                                           |
| MTBF (IEC 61709, SN 29500) | 25 °C                                          |
|                            | 40 °C                                          |
|                            | 60 °C                                          |
| Mounting position          | horizontal DIN rail NS 35, EN 60715            |
| Assembly instructions      | Alignable: 0 mm horizontally, 30 mm vertically |

### Connection data, input

|                                    |                     |
|------------------------------------|---------------------|
| Connection method                  | Push-in connection  |
| Conductor cross section solid min. | 0.2 mm <sup>2</sup> |

# Diode - TRIO2-DIODE/12-24DC/2X20/1X40 - 2907379

## Technical data

### Connection data, input

|                                       |                     |
|---------------------------------------|---------------------|
| Conductor cross section solid max.    | 4 mm <sup>2</sup>   |
| Conductor cross section flexible min. | 0.2 mm <sup>2</sup> |
| Conductor cross section flexible max. | 2.5 mm <sup>2</sup> |
| Conductor cross section AWG min.      | 24                  |
| Conductor cross section AWG max.      | 12                  |
| Stripping length                      | 10 mm               |

### Connection data, output

|                                       |                     |
|---------------------------------------|---------------------|
| 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 flexible min. | 0.2 mm <sup>2</sup> |
| Conductor cross section flexible max. | 2.5 mm <sup>2</sup> |
| Conductor cross section AWG min.      | 24                  |
| Conductor cross section AWG max.      | 14                  |
| Stripping length                      | 8 mm                |
| Screw thread                          | M3                  |

## Standards and Regulations

|                               |                                           |
|-------------------------------|-------------------------------------------|
| Electromagnetic compatibility | Conformance with EMC Directive 2014/30/EU |
| Noise immunity                | EN 61000-6-2:2005                         |
| Standards/regulations         | EN 61000-4-2                              |
| Contact discharge             | 4 kV (Test Level 2)                       |
| Standards/regulations         | EN 61000-4-3                              |
| Frequency range               | 80 MHz ... 1 GHz                          |
| Test field strength           | 10 V/m                                    |
| Frequency range               | 1.4 GHz ... 2 GHz                         |
| Test field strength           | 3 V/m                                     |
| Standards/regulations         | EN 61000-4-4                              |
| Comments                      | Criterion B                               |
| Standards/regulations         | EN 61000-4-5                              |
|                               | EN 61000-6-3                              |
|                               | EN 61000-4-6                              |
| Frequency range               | 0.15 MHz ... 80 MHz                       |
| Voltage                       | 10 V (Test Level 3)                       |
| Standards/regulations         | EN 61000-4-11                             |
| Low Voltage Directive         | Conformance with LV directive 2006/95/EC  |
| Standard - Electrical safety  | IEC 60950-1/VDE 0805 (SELV)               |

# Diode - TRIO2-DIODE/12-24DC/2X20/1X40 - 2907379

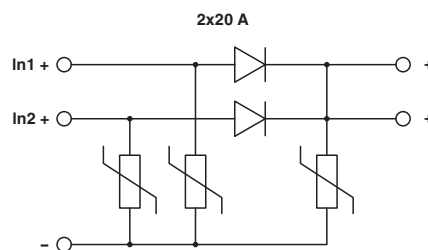
## Technical data

### 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 – Safety extra-low voltage                                                                                              | IEC 60950-1 (SELV) and EN 60204-1 (PELV)                          |
| UL approvals                                                                                                                     | UL/C-UL listed UL 508                                             |
|                                                                                                                                  | UL/C-UL Recognized UL 60950-1                                     |
| Shock                                                                                                                            | 18 ms, 30g, in each space direction (according to IEC 60068-2-27) |
| Vibration (operation)                                                                                                            | < 15 Hz, amplitude $\pm 2.5$ mm (according to IEC 60068-2-6)      |
|                                                                                                                                  | 15 Hz ... 150 Hz, 2.3g, 90 min.                                   |

## Drawings

Block diagram



## 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 | 27371010 |
| eCl@ss 9.0 | 27371010 |

### ETIM

|          |          |
|----------|----------|
| ETIM 5.0 | EC002540 |
| ETIM 6.0 | EC002540 |

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 13.2 | 39121004 |
|-------------|----------|

## Diode - TRIO2-DIODE/12-24DC/2X20/1X40 - 2907379

### Approvals

#### Approvals

---

#### Approvals

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

---

#### Ex Approvals

---

#### Approval details

|                |                                                                                     |                                                                                                                                                       |                          |
|----------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| UL Recognized  |    | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 211944            |
| UL Listed      |   | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 123528            |
| cUL Recognized |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 211944            |
| cUL Listed     |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 123528            |
| EAC            |  |                                                                                                                                                       | RU C-<br>DE.A*30.B.01082 |
| cULus Listed   |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> |                          |

---