

## Diode - TRIO2-DIODE/12-24DC/2X10/1X20 - 2907380

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Redundancy module, 12 V - 24 V DC, 2 x 10 A, 1 x 20 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.

### Your advantages

- 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 pc
GTIN	 4 055626 198262
GTIN	4055626198262

### Technical data

#### Dimensions

Width	35 mm
Height	130 mm
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)

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## Technical data

### Ambient conditions

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 10 A (-25 °C ... 60 °C)
	1x 20 A (-25 °C ... 60 °C)
Maximum input current	2x 15 A (-25 °C ... 40 °C)
	1x 30 A (-25 °C ... 40 °C)
Nominal input current	2x 10 A (-25 °C ... 60 °C)
	1x 20 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.	5 W ( $I_{OUT} = 10 A$ )

### General

Net weight	0.4 kg
Efficiency	> 97 %
Protection class	III
Degree of protection	IP20
MTBF (IEC 61709, SN 29500)	66425178 h (25 °C)
	56586762 h (40 °C)
	41744164 h (60 °C)
Mounting position	horizontal DIN rail NS 35, EN 60715
Assembly instructions	alignable: horizontally 0 mm, vertically 50 mm

### Connection data, input

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

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## Technical data

### Connection data, output

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

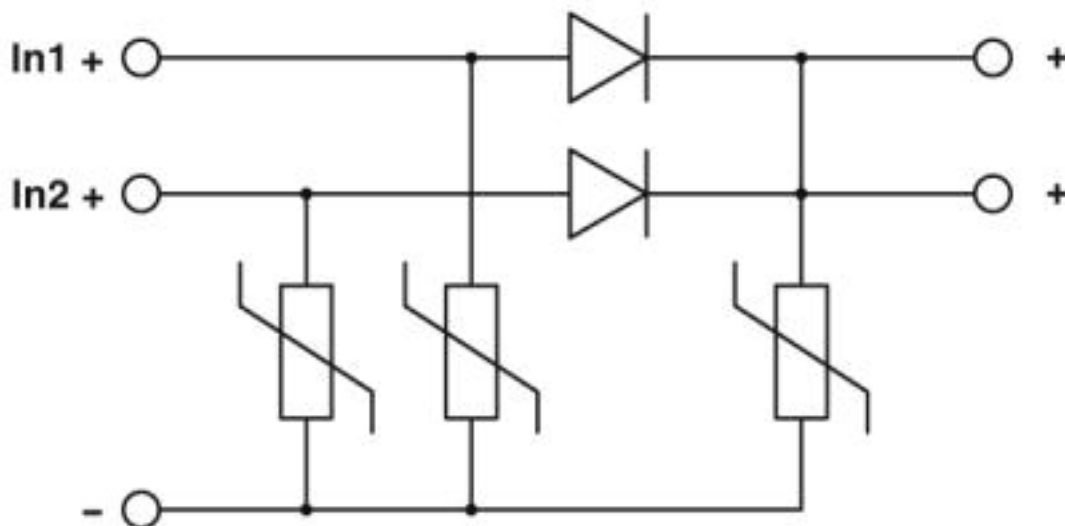
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Noise immunity	EN 61000-6-2:2005
Standards/regulations	EN 61000-4-2
Contact discharge	4 kV (Test Level 2)
Standards/regulations	EN 61000-4-3
Frequency range	80 MHz ... 1 GHz
Test field strength	10 V/m
Frequency range	1.4 GHz ... 2 GHz
Test field strength	3 V/m
Standards/regulations	EN 61000-4-4
Comments	Criterion B
Standards/regulations	EN 61000-6-3
	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)
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 ±2.5 mm (according to IEC 60068-2-6)
	15 Hz ... 150 Hz, 2.3g, 90 min.

## Drawings

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Block diagram

2x10 A



## Approvals

Approvals

Approvals

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

Ex Approvals


## Approval details

DNV GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	TAA000011F
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
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


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## Approvals

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
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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
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cULus Recognized			
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cULus Listed			
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