

## 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
Weight per Piece (excluding packing)	520.000 g
Custom tariff number	85049090
Country of origin	China

### Technical data

#### Dimensions

Width	35 mm
Height	130 mm

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## Technical data

### Dimensions

Depth	115 mm
Installation distance right/left	0 mm / 0 mm
Installation distance top/bottom	50 mm / 50 mm

### Ambient conditions

Degree of protection	IP20
Inflammability class in acc. with UL 94 (housing / terminal blocks)	V0
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 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
	10 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 %
MTBF (IEC 61709, SN 29500)	66425178 h (25 °C)
	56586762 h (40 °C)
	41744164 h (60 °C)
Degree of protection	IP20
Protection class	III
Inflammability class in acc. with UL 94 (housing / terminal blocks)	V0

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### Technical data

#### General

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>
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

EMC requirements for noise immunity	EN 61000-6-1
	EN 61000-6-2
EMC requirements for noise emission	EN 61000-6-3
	EN 61000-6-4
Standard - Electrical safety	IEC 62368-1 (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 62368-1 (SELV) und EN 60204-1 (PELV)

#### Conformance/approvals

UL approvals	UL/C-UL listed UL 508
	UL/C-UL Recognized UL 60950-1

#### EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
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### Technical data

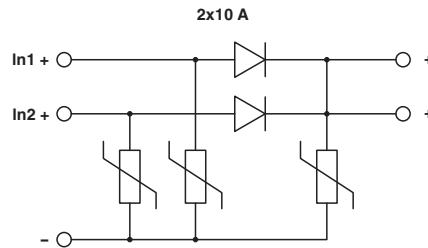
#### EMC data

Low Voltage Directive	Conformance with Low Voltage Directive 2014/35/EC
Electrostatic discharge	EN 61000-4-2
Contact discharge	4 kV (Test Level 3)
Discharge in air	8 kV (Test Level 3)
Electromagnetic HF field	EN 61000-4-3
Frequency range	80 MHz ... 1 GHz
Test field strength	10 V/m
Frequency range	1 GHz ... 2 GHz
Test field strength	10 V/m
Frequency range	2 GHz ... 3 GHz
Test field strength	10 V/m
Comments	Criterion A
Fast transients (burst)	EN 61000-4-4
Input	2 kV (Test Level 3 - asymmetrical)
Output	2 kV (Test Level 3 - asymmetrical)
Comments	Criterion B
Surge voltage load (surge)	EN 61000-4-5
Input	1 kV (Test Level 3 - symmetrical)
	2 kV (Test Level 4 - asymmetrical)
Output	1 kV (Test Level 2 - symmetrical)
	2 kV (Test Level 3 - asymmetrical)
Comments	Criterion B
Conducted interference	EN 61000-4-6
I/O/S	asymmetrical
Frequency range	0.15 MHz ... 80 MHz
Voltage	10 V (Test Level 3)
Comments	Criterion A
Voltage dips	EN 61000-4-11
Criterion A	Normal operating behavior within the specified limits.

### Drawings

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Block diagram



## Classifications

### eCl@ss

eCl@ss 10.0.1	27371010
eCl@ss 11.0	27371010
eCl@ss 4.0	27250300
eCl@ss 4.1	27250300
eCl@ss 5.0	27371000
eCl@ss 5.1	27371000
eCl@ss 6.0	27371000
eCl@ss 7.0	27371010
eCl@ss 9.0	27371010

### ETIM

ETIM 6.0	EC002540
ETIM 7.0	EC000683

### UNSPSC

UNSPSC 13.2	39121004
UNSPSC 18.0	32151504
UNSPSC 19.0	32151504
UNSPSC 20.0	32151504
UNSPSC 21.0	32151504

## Approvals

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

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## Approvals

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
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*DE*08.B.01873/19
cULus Recognized			
cULus Listed			