Redundancy module - TRIO-DIODE/12-24DC/2X10/1X20 - 2866514

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 with function monitoring, 12 ... 24 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.

Your advantages

- Flexible mounting by simply snapping onto the DIN rail
- Save energy
- Rugged design
- Permanent monitoring of redundancy
- Consistent redundancy up to the load

Key Commercial Data

Packing unit	1 pc
GTIN	4 046356 492034
GTIN	4046356492034

Technical data

Dimensions

Width	32 mm
Height	130 mm
Depth	115 mm
Installation distance right/left	0 mm / 0 mm

Redundancy module - TRIO-DIODE/12-24DC/2X10/1X20 - 2866514

Technical data

Dimensions

Installation distance top/bottom	50 mm / 50 mm

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C (> 55° 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 ... 55 °C)
	1x 20 A (-25 °C ... 55 °C)
Maximum input current	2x 15 A (-25°C ... 40°C)
	1x 30 A (-25°C ... 40°C)

Output data

Setting range of the output voltage (U_{Set})	12 V DC ... 24 V DC
Nominal output current (I_N)	20 A (Increasing power)
	10 A (Redundancy)
Derating	55 °C ... 70 °C (2.5%/K)
Connection in series	No
Power loss nominal load max.	7 W (I_{OUT} = 10 A)

General

Net weight	0.37 kg
Efficiency	> 97 %
	> 10000000 h (40 °C)
Degree of protection	IP20
Protection class	III
Housing material	Steel sheet, zinc-plated
Mounting position	horizontal DIN rail NS 35, EN 60715
Assembly instructions	alignable: horizontally 0 mm, vertically 50 mm

Connection data, input

Connection method	Screw connection
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	2.5 mm²
Conductor cross section AWG min.	24

Redundancy module - TRIO-DIODE/12-24DC/2X10/1X20 - 2866514

Technical data

Connection data, input

Conductor cross section AWG max.	14
Stripping length	9 mm
Screw thread	M2,5

Connection data, output

Connection method	Screw connection
Conductor cross section solid min.	0.5 mm²
Conductor cross section solid max.	6 mm²
Conductor cross section flexible min.	0.5 mm²
Conductor cross section flexible max.	4 mm²
Conductor cross section AWG min.	20
Conductor cross section AWG max.	10
Stripping length	14 mm
Screw thread	M3

Connection data for signaling

Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	2.5 mm²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	14
Screw thread	M2,5

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	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 60204-1 (PELV)
Standard - Safe isolation	DIN VDE 0100-410
Standard – Protection against shock currents, basic requirements for protective separation in electrical equipment	EN 50178

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
Low Voltage Directive	Conformance with Low Voltage Directive 2014/35/EC

Redundancy module - TRIO-DIODE/12-24DC/2X10/1X20 - 2866514

Technical data

EMC data

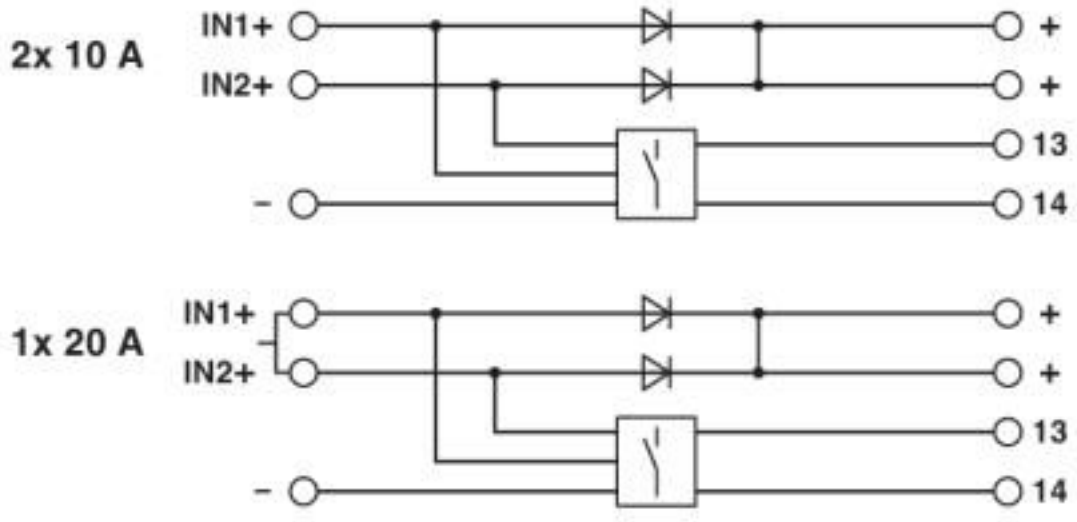
Electrostatic discharge	EN 61000-4-2
Electromagnetic HF field	EN 61000-4-3
Fast transients (burst)	EN 61000-4-4
Surge voltage load (surge)	EN 61000-4-5
Conducted interference	EN 61000-4-6

Environmental Product Compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 25;
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

Drawings

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 8.0	27371010

Redundancy module - TRIO-DIODE/12-24DC/2X10/1X20 - 2866514

Classifications

eCl@ss

eCl@ss 9.0	27371010

ETIM

ETIM 3.0	EC001039
ETIM 4.0	EC002542
ETIM 5.0	EC000683
ETIM 6.0	EC000683
ETIM 7.0	EC000683

UNSPSC

UNSPSC 6.01	30211502
UNSPSC 7.0901	39121004
UNSPSC 11	39121004
UNSPSC 12.01	39121004
UNSPSC 13.2	39121004
UNSPSC 18.0	32151504
UNSPSC 19.0	32151504
UNSPSC 20.0	32151504
UNSPSC 21.0	32151504

Approvals

Approvals

Approvals

DNV GL / BV / LR / NK / ABS / RINA / UL Listed / UL Recognized / cUL Recognized / cUL Listed / EAC / EAC / cULus Recognized / cULus Listed

Ex Approvals

Approval details

DNV GL	https://approvalfinder.dnvgl.com/	TAA000011F

BV	http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials	36077/B0 BV

Redundancy module - TRIO-DIODE/12-24DC/2X10/1X20 - 2866514

Approvals

LR	http://www.lr.org/en	14-20005

Nominal voltage UN	500 V
Nominal current IN	41 A
mm²/AWG/kcmil	6

NK	http://www.classnk.or.jp/hp/en/	14A002

Nominal voltage UN	500 V
Nominal current IN	63 A
mm²/AWG/kcmil	10

ABS	http://www.eagle.org/eagleExternalPortalWEB/	20-2022537-PDA

RINA	http://www.rina.org/en	ELE266118XG

UL Listed	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 123528

UL Recognized	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 211944

cUL Recognized	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 211944

cUL Listed	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 123528

EAC	EAC-Zulassung

Redundancy module - TRIO-DIODE/12-24DC/2X10/1X20 - 2866514

Approvals

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

Phoenix Contact 2020 © - all rights reserved
http://www.phoenixcontact.com

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
http://www.phoenixcontact.com