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

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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.

Product Features

- Save energy
- Permanent monitoring of redundancy
- Consistent redundancy up to the load

Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	520.0 g
Country of origin	China

Technical data

Dimensions

Width	32 mm
Height	130 mm
Depth	115 mm

Ambient conditions

Degree of protection	IP20

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Ambient conditions

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)

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 %
Protection class	III
	> 10000000 h (40°C)
Mounting position	horizontal DIN rail NS 35, EN 60715
Assembly instructions	Can be aligned: 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
Conductor cross section AWG max.	14
Stripping length	9 mm
Screw thread	M2,5

Connection data, output

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Technical data

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 and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Shock	15g in all directions in acc. with IEC 60068-2-27
Connection in acc. with standard	CUL
Standards/regulations	EN 61000-4-2
	EN 61000-4-3
	EN 61000-4-4
	EN 61000-4-5
	EN 61000-4-6
Standard – Electrical equipment of machines	EN 60204-1
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
UL approvals	UL/C-UL listed UL 508
	UL/C-UL Recognized UL 60950
Vibration (operation)	< 15 Hz, amplitude ±2.5 mm

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Standards and Regulations

	15 Hz ... 150 Hz, 2.3g t_v = 90 min.
Low Voltage Directive	Conformance with Low Voltage Directive 2006/95/EC

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	27040701

ETIM

ETIM 3.0	EC001039
ETIM 4.0	EC002542
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 / GL / RINA / NK / LR / DNV / ABS / EAC / EAC / BV / cULus Recognized / cULus Listed

Ex Approvals

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Approvals

Approvals submitted

Approval details

UL Recognized

UL Listed

cUL Recognized

cUL Listed

GL

RINA

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

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

DNV

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Approvals

ABS

EAC

EAC

BV

cULus Recognized

cULus Listed

Drawings

Block diagram