

Diode - QUINT-DIODE/12-24DC/2X20/1X40 - 2320157

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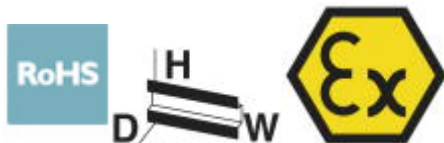
DIN rail diode module 12-24 V DC/2x20 A or 1x40 A. Uniform redundancy up to the consumer.

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, QUINT DIODE provides the solution: decoupling with diode.

Why buy this product

- ☒ Flexible
- ☒ Rugged design
- ☒ Consistent redundancy up to the load



Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 524766
GTIN	4046356524766
Weight per Piece (excluding packing)	750.000 g
Custom tariff number	85049091
Country of origin	China

Technical data

Dimensions

Width	50 mm
Height	130 mm
Depth	125 mm

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 70 °C (> 60 °C Derating: 2,5 %/K)
Ambient temperature (storage/transport)	-40 °C ... 85 °C

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Technical data

Ambient conditions

Max. permissible relative humidity (operation)	≤ 95 % (at 25 °C, non-condensing)
Maximum altitude	2000 m

Input data

Nominal input voltage range	12 V DC ... 24 V DC
	12 V DC ... 24 V DC
Input voltage range	10 V DC ... 30 V DC
	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 30 A (-25 °C ... 40 °C)
	1x 60 A (-25 °C ... 40 °C)
Nominal input current	2x 20 A (-25 °C ... 60 °C)
	1x 40 A (-25 °C ... 60 °C)
Maximum input current	2x 30 A (-25 °C ... 40 °C)
	1x 60 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)	40 A (Increasing power)
	20 A (Redundancy)
Derating	60 °C ... 70 °C (2.5%/K)
Connection in series	No
Power loss nominal load max.	10 W ($I_{OUT} = 20$ A)

General

Net weight	0.75 kg
Efficiency	> 97 %
	> 97 %
Protection class	III
MTBF (IEC 61709, SN 29500)	40000000 h
Mounting position	horizontal DIN rail NS 35, EN 60715
Assembly instructions	Alignable: 5 mm horizontally, 15 mm next to active components, 50 mm vertically

Connection data, input

Connection method	Screw connection
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	6 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	4 mm ²
Conductor cross section AWG min.	12
Conductor cross section AWG max.	10

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Technical data

Connection data, input

Stripping length	7 mm
Screw thread	M3

Connection data, output

Connection method	Screw connection
Conductor cross section solid min.	0.5 mm ²
Conductor cross section solid max.	16 mm ²
Conductor cross section flexible min.	0.5 mm ²
Conductor cross section flexible max.	16 mm ²
Conductor cross section AWG min.	10
Conductor cross section AWG max.	6
Stripping length	10 mm
Screw thread	M4

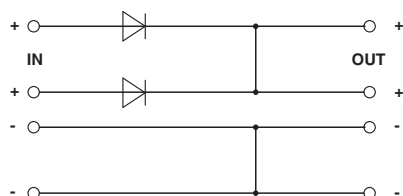
Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Shock	18 ms, 30g, in each space direction (according to 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 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
	UL ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D (Hazardous Location)
Vibration (operation)	< 15 Hz, amplitude ±2.5 mm (according to IEC 60068-2-6)
	15 Hz ... 150 Hz, 2.3g, 90 min.
Low Voltage Directive	Conformance with Low Voltage Directive 2006/95/EC
ATEX	# II 3G Ex nA IIC T4 Gc
	KEMA 10 ATEX 0165X
IECEX	Ex nA IIC T4 Gc
	IECEX KEM 10.0091

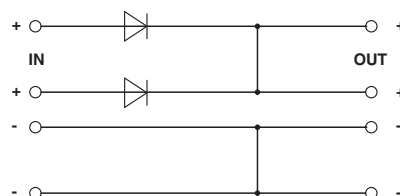
Drawings

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Block diagram



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	27049005
eCl@ss 7.0	27049005
eCl@ss 8.0	27371010
eCl@ss 9.0	27371010

ETIM

ETIM 4.0	EC002540
ETIM 5.0	EC000683
ETIM 6.0	EC000683

UNSPSC

UNSPSC 6.01	30211502
UNSPSC 7.0901	39121004
UNSPSC 11	39121004
UNSPSC 12.01	39121004
UNSPSC 13.2	32151504

Approvals

Approvals

Approvals

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

Ex Approvals

IECEx / ATEX / UL Listed / cUL Listed / cULus Listed

Approval details

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Approvals

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 211944
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UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 123528
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cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 211944
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cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 123528
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RINA		http://www.rina.org/en	ELE004715XG
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GL		http://www.gl-group.com/newbuilding/approvals/index.html	60098-13 HH
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NK	ClassNK	http://www.classnk.or.jp/hp/en/	14A002
mm²/AWG/kcmil		10	
Nominal current I _N		63 A	
Nominal voltage U _N		500 V	

LR		http://www.lr.org/en	14-20005
mm²/AWG/kcmil		6	
Nominal current I _N		41 A	
Nominal voltage U _N		500 V	

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Approvals

DNV		http://exchange.dnv.com/tari/	E-13924
ABS		http://www.eagle.org/eagleExternalPortalWEB/	15-GD1354693-PDA
EAC			EAC-Zulassung
EAC			RU C- DE.A*30.B.01082
BV		http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials	36077/A1 BV
cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	
cULus Listed			

Accessories

Accessories

Assembly adapter

Assembly adapters - UWA 182/52 - 2938235



Universal wall adapter for securely mounting the power supply in the event of strong vibrations. The power supply is screwed directly onto the mounting surface. The universal wall adapter is attached at the top/bottom.

Assembly adapters - QUINT-PS-ADAPTERS7/1 - 2938196



Assembly adapter for QUINT-PS... power supply on S7-300 rail

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Accessories

Assembly adapters - UTA 107/30 - 2320089



Universal DIN rail adapter

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