

## 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.

### Your advantages

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



### Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4046356524766

### Technical data

#### Dimensions

Width	50 mm
Height	130 mm
Depth	125 mm
Installation distance right/left	5 mm / 5 mm
Installation distance top/bottom	50 mm / 50 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
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
Installation height	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 %
MTBF (IEC 61709, SN 29500)	40000000 h
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: $P_N \geq 50\%$ , 5 mm horizontally, 15 mm next to active components, 50 mm vertically alignable: $P_N < 50\%$ , 0 mm horizontally, 40 mm vertically top, 20 mm vertically bottom

### Connection data, input

Connection method	Screw connection
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	6 mm <sup>2</sup>

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## Technical data

### Connection data, input

Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	4 mm <sup>2</sup>
Conductor cross section AWG min.	12
Conductor cross section AWG max.	10
Stripping length	7 mm
Screw thread	M3

### Connection data, output

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

### Standards

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
	UL ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D (Hazardous Location)

### EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Low Voltage Directive	Conformance with Low Voltage Directive 2014/35/EC
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
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# Diode - QUINT-DIODE/12-24DC/2X20/1X40 - 2320157

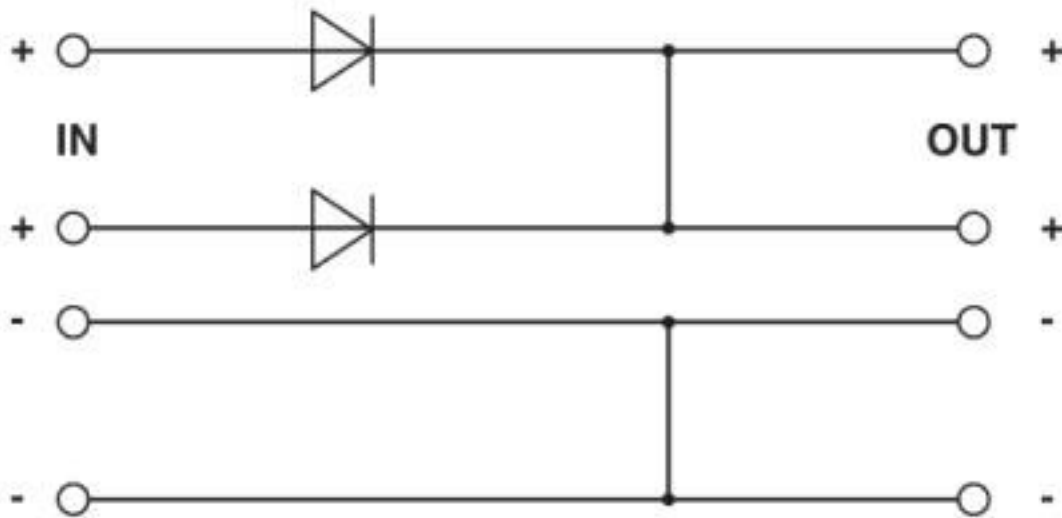
## Technical data

### Environmental Product Compliance

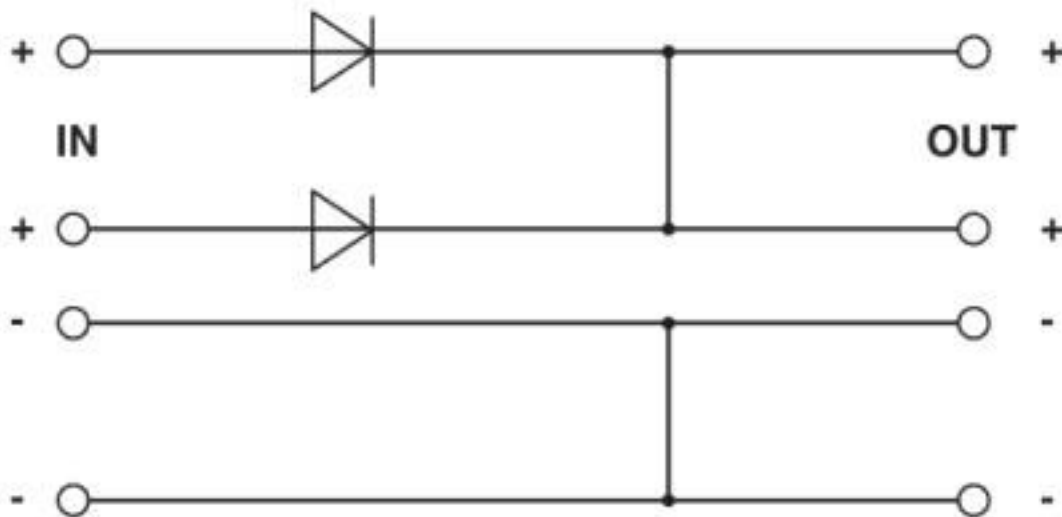
China RoHS	Environmentally Friendly Use Period = 25;
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Drawings

Block diagram



Block diagram



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## Classifications

### eCl@ss

eCl@ss 10.0.1	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
eCl@ss 9.0	27371010

### ETIM

ETIM 2.0	EC001039
ETIM 3.0	EC001039
ETIM 4.0	EC002540
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	32151504
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

IECEX / ATEX / UL Listed / cUL Listed / EAC Ex / cULus Listed

### Approval details

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

## Approvals

DNV GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	TAA000011F
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BV		<a href="http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials">http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials</a>	36077/B0 BV
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LR		<a href="http://www.lr.org/en">http://www.lr.org/en</a>	14-20005
Nominal voltage UN		500 V	
Nominal current IN		41 A	
mm <sup>2</sup> /AWG/kcmil		6	

NK	<b>ClassNK</b>	<a href="http://www.classnk.or.jp/hp/en/">http://www.classnk.or.jp/hp/en/</a>	14A002
Nominal voltage UN		500 V	
Nominal current IN		63 A	
mm <sup>2</sup> /AWG/kcmil		10	

ABS	<a href="http://www.eagle.org/eagleExternalPortalWEB/">http://www.eagle.org/eagleExternalPortalWEB/</a>	15-GD1354693-PDA
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RINA		<a href="http://www.rina.org/en">http://www.rina.org/en</a>	ELE004715XG
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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
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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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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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## Approvals

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EAC		EAC-Zulassung
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EAC		RU*DE*08.B.01873/19
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cULus Recognized		
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cULus Listed		
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## Accessories

### Accessories

#### Assembly adapter

Assembly adapters - UWA 182/52 - 2938235



Universal wall adapter for securely mounting the device in the event of strong vibrations. The device is screwed directly onto the mounting surface. The universal wall adapter is attached on 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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[MYGTM01210BZN](#) [JRCS016A0S4-HZ](#) [40C24-N250-I5-H](#) [40A24-P30-E](#) [3V12-P0.8](#) [10C24-N250-I10-AQ-DA](#) [4AA24-P20-M-H](#) [3V12-](#)  
[N0.8](#) [3V24-P1](#) [3V24-N1](#) [BMR4672010/001](#) [BMR4652010/001](#) [6AA24-P30-I5-M](#) [6AA24-N30-I5-M](#) [BM2P101X-Z](#) [35A24-P30](#) [2.5M24-P1](#)  
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[1/2AA24-N30-I10](#) [1C24-N125](#) [12C24-N250](#) [V7806-1500](#) [PTV12020LAH](#) [PTV05010WAH](#) [PTN04050CAZT](#) [PTH12020WAD](#)  
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