

## 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 Features

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



### Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	920.0 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
Max. permissible relative humidity (operation)	≤ 95 % (at 25 °C, non-condensing)
Maximum altitude	2000 m

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### Technical data

#### 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 $I_N$	2x 20 A (-25 °C ... 60 °C)
	1x 40 A (-25 °C ... 60 °C)
Maximum current $I_{max}$	2x 30 A (-25°C ... 40°C)
	1x 60 A (-25°C ... 40°C)
Nominal input current $I_N$	2x 20 A (-25 °C ... 60 °C)
	1x 40 A (-25 °C ... 60 °C)
Maximum current $I_{max}$	2x 30 A (-25°C ... 40°C)
	1x 60 A (-25°C ... 40°C)

#### Output data

Setting range of the output voltage	12 V DC ... 24 V DC
Nominal output current	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
Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
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
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)

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## Technical data

### General

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)

### 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>
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 and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Shock	30g in each direction, according to IEC 60068-2-27
Connection in acc. with standard	CUL
Standards/regulations	EN 61000-4-3
	EN 61000-4-4
	EN 61000-4-6
Standard - Electrical safety	EN 60950-1/VDE 0805 (SELV)

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## Technical data

### Standards and Regulations

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)
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

### 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

#### ETIM

ETIM 4.0	EC002540
ETIM 5.0	EC000683

#### UNSPSC

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

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## Approvals

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#### 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

#### Approvals submitted

### Approval details

UL Recognized

UL Listed

cUL Recognized

cUL Listed

RINA

GL

NK	
mm <sup>2</sup> /AWG/kcmil	10
Nominal current I <sub>N</sub>	63 A

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## Approvals

Nominal voltage UN	500 V
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LR	
mm <sup>2</sup> /AWG/kcmil	6
Nominal current IN	41 A
Nominal voltage UN	500 V

DNV

ABS

EAC

EAC

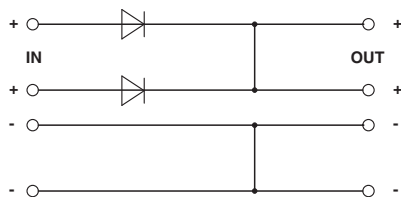
BV

cULus Recognized

cULus Listed

## Drawings

Block diagram



Block diagram

