

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

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>)



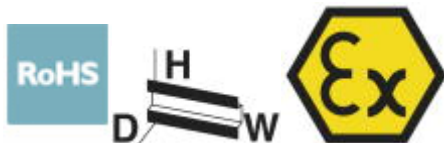
DIN rail diode module 12-24 V DC/2x20 A or 1x40 A. Uniform redundancy up to the consumer.

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

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

Technical data

Ambient conditions

Max. permissible relative humidity (operation)	≤ 95 % (at 25 °C, non-condensing)
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 %
Protection class	III
Degree of protection	IP20
MTBF (IEC 61709, SN 29500)	40000000 h
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 ²
Conductor cross section solid max.	6 mm ²

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

Technical data

Connection data, input

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
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
Connection in acc. with standard	CUL
Standards/regulations	EN 61000-4-2
Contact discharge	8 kV (Contact discharge)
Standards/regulations	EN 61000-4-3
Frequency range	80 MHz ... 1 GHz
Test field strength	20 V/m
Frequency range	1 GHz ... 3 GHz
Test field strength	10 V/m
Standards/regulations	EN 61000-4-4
Comments	Criterion A
Standards/regulations	EN 61000-4-5
	EN 61000-6-3
	EN 61000-4-6
Frequency range	0.15 MHz ... 80 MHz
Voltage	10 V
Low Voltage Directive	Conformance with Low Voltage Directive 2006/95/EC
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

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

Technical data

Standards and Regulations

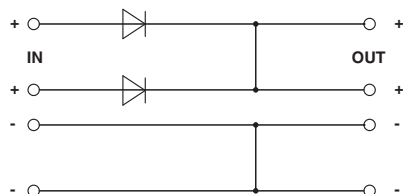
Standard – Protection against shock currents, basic requirements for protective separation in electrical equipment	EN 50178
UL approvals	UL/C-UL listed UL 508
	UL/C-UL Recognized UL 60950-1
	UL ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D (Hazardous Location)
Shock	18 ms, 30g, in each space direction (according to IEC 60068-2-27)
Vibration (operation)	< 15 Hz, amplitude ±2.5 mm (according to IEC 60068-2-6)
	15 Hz ... 150 Hz, 2.3g, 90 min.
ATEX	# II 3G Ex nA IIC T4 Gc
	KEMA 10 ATEX 0165X
IECEX	Ex nA IIC T4 Gc
	IECEX KEM 10.0091

Environmental Product Compliance

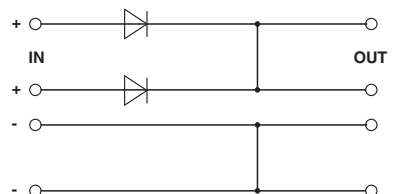
REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 25;
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

Block diagram



Block diagram



Approvals

Approvals

Approvals

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

Ex Approvals


IECEX / ATEX / UL Listed / cUL Listed / cULus Listed

Approval details

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


Approvals


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


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

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
------------	---	---	---------------

RINA		http://www.rina.org/en	ELE004715XG
------	---	---	-------------

NK		http://www.classnk.or.jp/hp/en/	14A002
Nominal voltage UN		500 V	
Nominal current IN		63 A	
mm ² /AWG/kcmil		10	

LR		http://www.lr.org/en	14-20005
Nominal voltage UN		500 V	
Nominal current IN		41 A	
mm ² /AWG/kcmil		6	

ABS	http://www.eagle.org/eagleExternalPortalWEB/	15-GD1354693-PDA
-----	---	------------------

EAC		EAC-Zulassung
-----	---	---------------

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

Approvals

EAC			RU C- DE.A*30.B.01082
-----	--	--	--------------------------

BV		http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials	36077/A1 BV
----	--	---	-------------

DNV GL		http://exchange.dnv.com/tari/	TAA000011F
--------	--	---	------------

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

Assembly adapters - UTA 107/30 - 2320089



Universal DIN rail adapter

