

QUINT-ORING/24DC/2X10/1X20 - Redundancy module, with protective coating



2320173

<https://www.phoenixcontact.com/pt/produtos/2320173>

Note que os dados aqui indicados foram obtidos a partir do catálogo online. Para informações e dados completos, consulte a documentação do utilizador. Aplicam-se as condições gerais de utilização para downloads da Internet



Active QUINT redundancy module for DIN rail mounting with Auto Current Balancing ACB technology and monitoring functions, input: 24 V DC, output: 24 V DC/2 x 10 A or 1 x 20 A, including mounted UTA 107/30 universal DIN rail adapter

Descrição do produto

The Auto Current Balancing ACB technology of the QUINT ORING modules doubles the service life of redundantly operated power supplies by evenly utilizing the power supply units. The load current is automatically distributed symmetrically.

Vantagens

- Service life of the redundant solution is doubled, thanks to uniform distribution of the load
- Save energy
- Permanent monitoring of redundancy
- Consistent redundancy up to the load

Dados comerciais

N.º de artigo	2320173
Pcs./Emb	1 Unidade
Quantidade mínima de pedido	1 Unidade
Chave comercial	CMR
Chave de produto	CMRQ43
Página de catálogo	Página 302 (C-4-2019)
GTIN	4046356524902
Peso por unidade (inclusive embalagem)	633,4 g
Peso por unidade (excluindo embalagem)	400 g
Número do imposto alfandegário	85371091
País de origem	CN

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Dados técnicos

Input data

DC operation

Nominal input voltage range	24 V DC
Input voltage range	18 V DC ... 28 V DC (SELV)
Input voltage range DC	18 V DC ... 28 V DC (SELV)
Voltage type of supply voltage	DC
Reverse polarity protection	< yes60 V
Nominal input current (I_N)	2x 10 A (-25 °C ... 60 °C) 1x 20 A (-25 °C ... 60 °C)
Maximum current I_{max}	2x 15 A (-25 °C ... 40 °C) 1x 30 A (-25 °C ... 40 °C) 60 A (12 ms, SFB Technology)
Transient surge protection	Varistor
Voltage drop, input/output	0.1 V ($I_{OUT} = 20$ A)

Output data

Efficiency	> 98 %
Nominal output voltage	$U_{in} - 0.1$ V
Nominal output current (I_N)	20 A (Increasing power) 10 A (Redundancy)
Derating	60 °C ... 70 °C (2.5 %/K)
Protection against overvoltage at the output (OVP)	< 32 V DC
Power loss nominal load max.	2 W ($I_{OUT} = 20$ A)
Connection in series	No

Signal: Redundancy OK, 13/14

Output description	Group contact
Maximum switching voltage	max. 30 V AC/DC
Maximum inrush current	≤ 100 mA (short-circuit-proof)

Signal: ACB (Auto Current Balancing) OK, 23/24

Output description	Contact closed: $\Delta U_{IN} \leq 300$ mV
Maximum switching voltage	max. 30 V AC/DC
Maximum inrush current	≤ 100 mA (short-circuit-proof)

Connection data

Input

Connection method	Screw connection
Conductor cross section, rigid min.	0.2 mm ²
Conductor cross section, rigid max.	4 mm ²

QUINT-ORING/24DC/2X10/1X20 - Redundancy module, with protective coating



2320173

<https://www.phoenixcontact.com/pt/produtos/2320173>

Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Stripping length	8 mm
Screw thread	M3
Tightening torque, min	0.5 Nm
Tightening torque max	0.6 Nm

Output

Connection method	Screw connection
Conductor cross section, rigid min.	0.2 mm ²
Conductor cross section, rigid 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.	10
Stripping length	7 mm
Screw thread	M3
Tightening torque, min	0.5 Nm
Tightening torque max	0.6 Nm

Signal

Connection method	Screw connection
Conductor cross section, rigid min.	0.2 mm ²
Conductor cross section, rigid max.	4 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Stripping length	10 mm
Screw thread	M3
Tightening torque, min	0.5 Nm
Tightening torque max	0.6 Nm

Signaling

Types of signaling	Relay contact, floating, current limited
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Signal output: Redundancy OK, 13/14

Status display	LED redundancy OK
Note on status display	green
Color	green

Signal output: ACB (Auto Current Balancing) OK, 23/24

Status display	ACB OK LED
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2320173

<https://www.phoenixcontact.com/pt/produtos/2320173>

Note on status display	LED bar graph green
Color	green
Note on status display	LED bar graph green

Electrical properties

Insulation voltage input, output / housing	500 V
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Product properties

Product type	Redundancy module
Product family	QUINT ORING
MTBF (IEC 61709, SN 29500)	> 1000000 h (40 °C)
LED	yes

Insulation characteristics

Protection class	III
Degree of pollution	2

Dimensions

Width	32 mm
Height	130 mm
Depth	125 mm

Installation dimensions

Installation distance right/left	5 mm / 5 mm
Installation distance top/bottom	50 mm / 50 mm

Alternative assembly

Width	122 mm
Height	130 mm
Depth	35 mm

Mounting

Mounting type	DIN rail mounting
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
Mounting position	horizontal DIN rail NS 35, EN 60715

Material specifications

Flammability rating according to UL 94 (housing / terminal blocks)	V0
Housing material	Metal
Housing material	Steel sheet, zinc-plated
Type of housing	Aluminum (AlMg3)
Hood version	Galvanized sheet steel, free from chrome (VI)

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2320173

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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C (> 60 °C Derating: 2,5 %/K)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Ambient temperature (start-up type tested)	-40 °C
Maximum altitude	2000 m
Climatic class	3K3 (in acc. with EN 60721)
Max. permissible relative humidity (operation)	≤ 100 % (at 25 °C, non-condensing)
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 t _v = 90 min.

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 - Electrical safety	EN 60950-1/VDE 0805 (SELV)
Standard – Safety extra-low voltage	IEC 60950-1 (SELV) and EN 60204-1 (PELV)
Noxious gas test	ISA-S71.04-1985 G3 Harsh Group A

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)

Conformity/Approvals

ATEX	Ex II 3 G Ex ec nC IIC T4 Gc
	DEKRA 20ATEX0136 X
IECEX	Ex ec nC IIC T4 Gc
	DEK 20.0082X

EMC data

Low Voltage Directive	Conformance with Low Voltage Directive 2014/35/EC
EMC requirements for noise emission	EN 61000-6-3
	EN 61000-6-4
EMC requirements for noise immunity	EN 61000-6-1
	EN 61000-6-2
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU

Electrostatic discharge

Standards/regulations	EN 61000-4-2
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2320173

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Electrostatic discharge

Contact discharge	8 kV (Test Level 4)
Discharge in air	15 kV (Test Level 4)
Comments	Criterion B

Electromagnetic HF field

Standards/regulations	EN 61000-4-3
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Electromagnetic HF field

Frequency range	80 MHz ... 1 GHz
Test field strength	20 V/m (Test Level 3)
Frequency range	1 GHz ... 2 GHz
Test field strength	10 V/m (Test Level 3)
Frequency range	2 GHz ... 3 GHz
Test field strength	10 V/m (Test Level 3)
Comments	Criterion A

Fast transients (burst)

Standards/regulations	EN 61000-4-4
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Fast transients (burst)

Input	2 kV (Test Level 3 - asymmetrical)
Output	2 kV (Test Level 3 - asymmetrical)
Signal	2 kV (Test Level 4 - asymmetrical)
Comments	Criterion B

Surge voltage load (surge)

Standards/regulations	EN 61000-4-5
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Surge voltage load (surge)

Input	0.5 kV (Test Level 1 - symmetrical)
	0.5 kV (Test Level 1 - asymmetrical)
Output	0.5 kV (Test Level 1 - symmetrical)
	0.5 kV (Test Level 1 - asymmetrical)
Signal	1 kV (Test Level 2 - asymmetrical)
Comments	Criterion B

Conducted interference

Standards/regulations	EN 61000-4-6
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Conducted interference

I/O/S	asymmetrical
Frequency range	0.15 MHz ... 80 MHz
Comments	Criterion A
Voltage	10 V (Test Level 3)

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Emitted interference	
Standards/regulations	EN 61000-6-3
Radio interference voltage in acc. with EN 55011	EN 55011 (EN 55022) Class B, area of application: Industry and residential
Emitted radio interference in acc. with EN 55011	EN 55011 (EN 55022) Class B, area of application: Industry and residential

Criteria	
Criterion A	Normal operating behavior within the specified limits.
Criterion B	Temporary impairment to operational behavior that is corrected by the device itself.

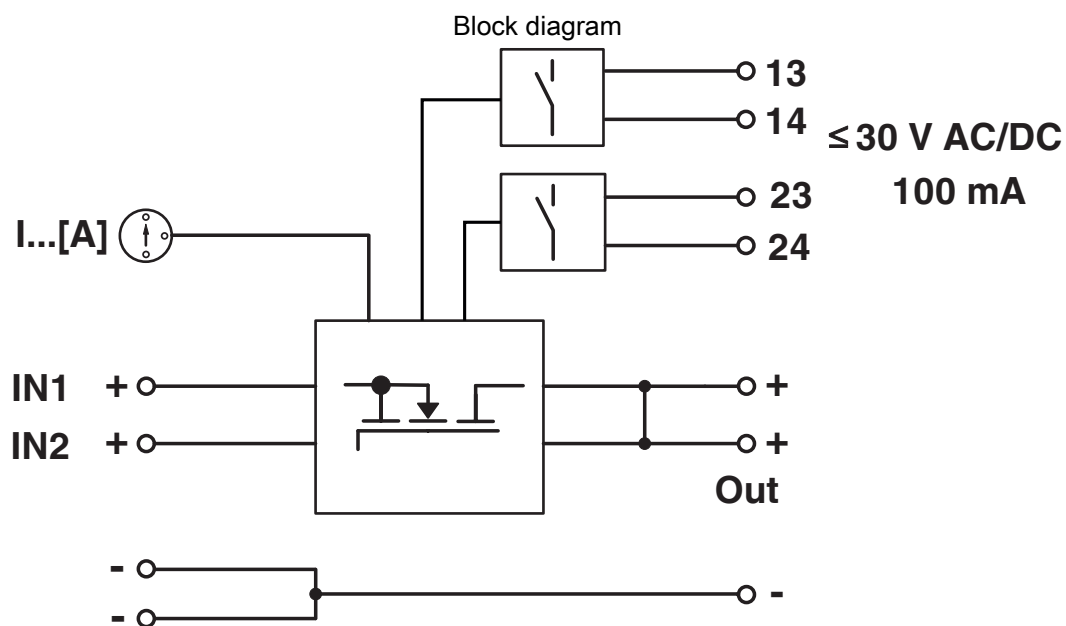
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Desenhos



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Certificações

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pt/produtos/2320173>



cUL Recognized

ID de certificação: FILE E 211944



UL Recognized

ID de certificação: FILE E 211944



EAC

ID de certificação: EAC-Zulassung



LR

ID de certificação: 14-20005

	Tensão nominal U_N	Corrente nominal I_N	Secção transversal American Wire Gauge	Secção transversal mm^2
	500 V	41 A	-	- 6



NK

ID de certificação: TA19447M

	Tensão nominal U_N	Corrente nominal I_N	Secção transversal American Wire Gauge	Secção transversal mm^2
	500 V	63 A	-	- 10



EAC

ID de certificação: RU S-DE.BL08.W.00764



UL Listed

ID de certificação: FILE E 123528



cUL Listed

ID de certificação: FILE E 123528



RINA

ID de certificação: ELE362819XG

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ABS

ID de certificação: 20-2022537-PDA

DNV

ID de certificação: TAA000011F



IECEE CB Scheme

ID de certificação: DE/PTZ/0044



ATEX

ID de certificação: DEKRA 20ATEX0136 X



EAC Ex

ID de certificação: RU C-DE.HB49.B.00004



IEC Ex

ID de certificação: IECEx DEK 20.0082X



CCC

ID de certificação: 2021322303003736



cUL Listed

ID de certificação: FILE E 199827



UL Listed

ID de certificação: FILE E 199827

INMETRO

ID de certificação: DNV 22.0237 X



NEPSI-EX

ID de certificação: GYJ21.1003X

cULus Recognized

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Classificações

ECLASS

ECLASS-11.0	27371010
ECLASS-13.0	27371010
ECLASS-12.0	27371010

ETIM

ETIM 9.0	EC000683
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UNSPSC

UNSPSC 21.0	32151500
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Environmental product compliance

EU RoHS

Cumpra os requisitos de substância segundo a Diretiva RoHS	Sim
isenções tanto quanto conhecido	7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-25
	Uma lista de declaração de acordo com a RoHS da China relativa a artigos encontra-se na área de transferências do respetivo artigo, em "Declaração do fabricante". Para todos os artigos com EFUP-E não é emitida nem necessária uma tabela de declaração de acordo com a RoHS da China.

EU REACH SVHC

Nota sobre as substâncias candidatas ao REACH (n.º CAS)	Lead(n.º CAS: 7439-92-1)
SCIP	2651cfa7-cac5-4281-9143-0cd14d514f08

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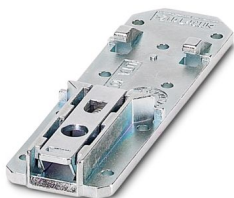
Acessórios

UTA 107/30 - Mounting adapter

2320089

<https://www.phoenixcontact.com/pt/produtos/2320089>

Universal DIN rail adapter



UWA 182/52 - Mounting adapter

2938235

<https://www.phoenixcontact.com/pt/produtos/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.



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QUINT-PS-ADAPTERS7/1 - Mounting adapter

2938196

<https://www.phoenixcontact.com/pt/produtos/2938196>

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



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