

QUINT4-CAP/24DC/3.8/1KJ/PT - Capacity module



2320526

<https://www.phoenixcontact.com/us/products/2320526>

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QUINT capacity module with maintenance-free double-layer capacitor-based energy storage for DIN rail mounting, input: 24 V DC, output: 24 V DC / 3.8 A / 1 kJ

Your advantages

- Maintenance-free with a long service life
- Space savings, thanks to the compact design
- Long buffer time, thanks to high memory capacity

Commercial data

Item number	2320526
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CM21
Product key	CMUIC3
GTIN	4055626246925
Weight per piece (including packing)	605 g
Weight per piece (excluding packing)	454 g
Customs tariff number	85322900
Country of origin	CN

Technical data

Input data

Input voltage	24 V DC (SELV)
Input voltage range	22.5 V DC ... 30 V DC
Fixed backup threshold	< 22 V DC
Current consumption I_{\max} (U_N , $I_{OUT} = I_{Stat.Boost}$, $I_{charge} = \max$)	4.3 A
Current consumption $I_{No-Load}$ (U_N , $I_{OUT} = 0$, $I_{charge} = 0$)	0.08 A
Current consumption I_{charge} (U_N , $I_{OUT} = 0$, $I_{charge} = \max$)	0.43 A
Buffer time	9 s (3.8 A)
	30 s (1 A)
Charging time	4 min. (0.43 A)
Recharging time	3 min. (0.43 A)

Output data

Efficiency	> 97 % (with charged energy storage device)
Connection in parallel	yes
	max. 2 (with decoupling module)
Connection in series	No

Mains operation

Output voltage	24 V DC (depending on the input voltage)
Output current I_N	3.8 A
Output power P_{OUT} (U_N , $I_{OUT} = I_N$)	91.2 W
Maximum no-load power dissipation	< 2 W

Battery operation

Output voltage	24 V DC
Output current I_N	3.8 A

Energy storage

General

Capacity	1 kJ
Storage medium	Double-layer capacitor
Buffer time	9 s (3.8 A)
	30 s (1 A)

Connection data

Conductor connection

Connection method	Push-in connection
rigid	0.2 mm ² ... 2.5 mm ²
flexible	0.2 mm ² ... 2.5 mm ²
flexible with ferrule without plastic sleeve	0.25 mm ² ... 2.5 mm ²

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flexible with ferrule with plastic sleeve	0.25 mm ² ... 2.5 mm ²
rigid (AWG)	24 ... 14
Stripping length	10 mm

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flexible	0.2 mm ² ... 2.5 mm ²
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rigid (AWG)	24 ... 14
Stripping length	10 mm

Signaling

Signal state Remote

Connection labeling	3.3
State (configurable)	Remote
State condition	Remote

Signal state UIN OK

Connection labeling	3.1
Switching output	Transistor output, active
State (configurable)	U _{In} OK
Output voltage	24 V (U _N - 1 V (typical))
Output can be loaded	20 mA
LED status indicator	green (U _{In} OK)
Signal threshold	Input voltage in the valid range

Signal state Ready

Connection labeling	3.2
Switching output	Transistor output, active
State (configurable)	Ready
State condition (configurable)	State of charge = 100% or buffer mode
Output voltage	24 V (U _N - 1 V (typical))
Output can be loaded	20 mA

Signal ground SGnd

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Connection labeling	3.4
Function	Signal ground
Reference potential	U_{In} OK (3.1), Ready (3.2), Remote (3.3)

Electrical properties

Insulation voltage input, output / housing	500 V
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Product properties

Product type	DC UPS with integrated capacitor
Product family	QUINT capacity module
MTBF (IEC 61709, SN 29500)	996550 h (40 °C)
	1631804 h (25 °C)
	449865 h (60 °C)

Insulation characteristics

Protection class	III
Overvoltage category	II
Degree of pollution	2

Dimensions

Item dimensions

Width	85 mm
Height	102.5 mm
Depth	90 mm

Installation dimensions

Installation distance right/left	0 mm / 0 mm
Installation distance top/bottom	50 mm / 50 mm

Mounting

Mounting type	DIN rail mounting
Assembly instructions	alignable: horizontally 0 mm, vertically 50 mm
Mounting position	Any, on NS 35 DIN rail

Material specifications

Housing material	Plastic
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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 60 °C
Ambient temperature (start-up type tested)	-40 °C
Maximum altitude	≤ 4000 m
Climatic class	3K3 (in acc. with EN 60721)

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Max. permissible relative humidity (operation)	≤ 95 %
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Approvals

UL

Identification	UL Listed UL 61010-1
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UL

Identification	UL Listed UL 61010-2-201
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UL

Identification	UL 121201
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CSA

Identification	CSA C22.2 No. 223 class 2 (buffer mode)
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CSA

Identification	CAN/CSA-C22.2 No. 61010-1-12
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CSA

Identification	CAN/CSA C22.2 No. 61010-2-201:14
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CSA

Identification	CSA C22.2 No. 213-17
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UL NEC

Identification	UL 1310 class 2 (buffer mode)
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CB scheme

Identification	IEC 61010-1
	IEC 61010-2-201
	EN 61010-1
	EN 61010-2-201

EMC data

Low Voltage Directive	Conformance with Low Voltage Directive 2014/35/EC
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Noise emission	EN 61000-6-3

Electrostatic discharge

Standards/regulations	EN 61000-4-2
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Electrostatic discharge

Contact discharge	6 kV (Test Level 3)
Discharge in air	8 kV (Test Level 3)
Comments	Criterion B

Electromagnetic HF field

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

Frequency range	80 MHz ... 6 GHz
Test field strength	10 V/m
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
Input	1 kV (Test Level 3 - symmetrical) 2 kV (Test Level 3 - asymmetrical)
Output	1 kV (Test Level 3 - symmetrical) 2 kV (Test Level 3 - asymmetrical)
Signal	1 kV (Test Level 1 - asymmetrical)
Comments	Criterion B

Conducted interference

Standards/regulations	EN 61000-4-6
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Conducted interference

Frequency range	0.15 MHz ... 80 MHz
Comments	Criterion A
Voltage	10 V

Criteria

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

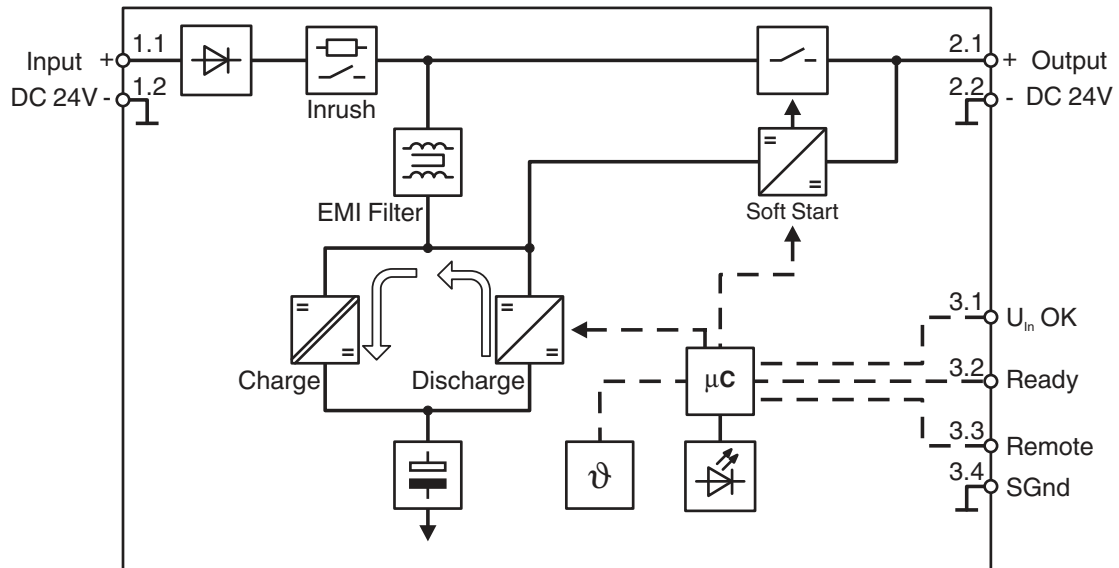
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Drawings

Block diagram



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Approvals

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UL Listed

Approval ID: FILE E 123528



cUL Listed

Approval ID: FILE E 123528



EAC

Approval ID: RU*DE*HB54.B05799/20



cUL Listed

Approval ID: FILE E 199827



UL Listed

Approval ID: FILE E 199827

cULus Listed

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Classifications

ECLASS

ECLASS-11.0	27040705
ECLASS-12.0	27040705
ECLASS-13.0	27040705

ETIM

ETIM 8.0	EC002850
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UNSPSC

UNSPSC 21.0	26111700
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Environmental product compliance

REACH SVHC

Lead 7439-92-1

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Accessories

CB TM1 8A SFB P - Thermomagnetic device circuit breaker

2800842

<https://www.phoenixcontact.com/us/products/2800842>



Thermomagnetic device circuit breaker, 1-pos., tripping characteristic SFB, 1 changeover contact, plug for base element.

CB 1/6-2/4 PT-BE - Base element

2800929

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Base element with push-in connection technology for CB ... device circuit breakers

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SI FORM C 7,5 A DIN 72581 - Fuse

0913702

<https://www.phoenixcontact.com/us/products/0913702>

Flat-type plug-in fuse, type C, color code: brown, nominal current: 7.5 A



PT 6-FSI/C - Fuse modular terminal block

3212166

<https://www.phoenixcontact.com/us/products/3212166>



Fuse modular terminal block, fuse type: Flat, fuse type: Type C / max. 2.2 W, nom. voltage: 400 V, nominal current: 25 A, connection method: Push-in connection, Rated cross section: 6 mm², cross section: 0.5 mm²- 10 mm², mounting type: NS 35/7,5, NS 35/15, color: black

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