

## Buffer module - QUINT-BUFFER/24DC/20 - 2866213

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Buffer module 24 V DC/20 A, maintenance-free power storage device on a capacitor basis. In the download area, there is a clearly arranged selection table available with load currents and buffer times, as well as charging times after buffer mode.

### Product Description

Short-term mains interruptions are bridged by QUINT BUFFER, a maintenance-free buffer module on a capacitor basis. Systems can therefore also run in unstable networks or are, in the event of failures of a longer duration, correctly shut down after all relevant process data is saved. The bridging time is 200 ms at 20 A and 4 s at 1 A. The buffer module also acts as a power storage device for peak loads and for triggering fuses. For function monitoring, an active switching output and a control lamp are used. With the integrated diode, loads can be divided into buffered and unbuffered loads. Thus, the buffer period is extended and the buffered consumers are protected against errors in the internal network.



### Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	1140.0 g
Custom tariff number	85049091
Country of origin	China

### Technical data

#### Dimensions

Width	64 mm
Height	130 mm
Depth	125 mm
Width with alternative assembly	122 mm
Height with alternative assembly	130 mm
Depth with alternative assembly	67 mm

#### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

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#### Ambient conditions

Max. permissible relative humidity (operation)	≤ 95 % (at 25 °C, non-condensing)
Noise immunity	EN 61000-6-2:2005

#### Input data

Nominal input voltage	24 V DC
Input voltage range	22.5 V DC ... 30 V DC
Current consumption (maximum)	20.6 A (max.)
Current consumption (idle)	approx. 0.1 A
Current consumption (charging process)	0.6 A (charging process)
Buffer period	0.2 s (20 A)
	4 s (1 A)
Charging time	< 27 s
Type of protection	Transient surge protection
Protective circuit/component	Suppressor diode, 35 V DC

#### Output data

Nominal output voltage	24 V DC (depending on the input voltage)
Setting range of the output voltage	22 V DC ... 28.5 V DC
Nominal output current	20 A
Connection in parallel	Yes, for increasing the buffer time and for redundancy
Connection in series	Yes
Residual ripple	< 100 mV <sub>PP</sub> (buffer mode)
Output power	480 W
Peak switching voltages nominal load	< 100 mV <sub>PP</sub> (20 MHz)
Type of protection	Transient surge protection
Protective circuit/component	Suppressor diode, 35 V DC

#### General

IQ technology	No
Net weight	1 kg
Memory medium	Internal, capacity
Operating voltage display	Green LED
Efficiency	> 95 %
Insulation voltage input/output	1 kV (routine test)
	1 kV (type test)
Protection class	III
MTBF (IEC 61709, SN 29500)	> 500000 h
Mounting position	horizontal DIN rail NS 35, EN 60715
Assembly instructions	Can be aligned: Horizontally 0 mm, vertically 50 mm

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### Technical data

#### Connection data, input

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.	10 mm <sup>2</sup>
Conductor cross section AWG min.	20
Conductor cross section AWG max.	6
Stripping length	10 mm
Screw thread	M4

#### 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.	10 mm <sup>2</sup>
Conductor cross section AWG min.	20
Conductor cross section AWG max.	6
Stripping length	10 mm
Screw thread	M4

#### Signaling

Output name	Active (high = buffer module is loaded)
Output description	Power Good
Maximum switching voltage	≤ 24 V
Output voltage	+ 24 V
Continuous load current	≤ 20 mA
Status display	LED "Power Good", green
Note on status display	Buffer module is loaded: LED ON
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Tightening torque, min	0.5 Nm
Tightening torque max	0.6 Nm
Screw thread	M3

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### Technical data

#### Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Shock	30g in each direction, according to IEC 60068-2-27
Noise emission	EN 55011 (EN 55022)
Noise immunity	EN 61000-6-2:2005
Connection in acc. with standard	CUL
Standards/regulations	EN 61000-4-3
	EN 61000-4-4
	EN 61000-4-6
Standard – Electrical equipment of machines	EN 60204-1
Standard - Safety of transformers	EN 61558-2-17
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	EN 60950-1 (SELV) and EN 60204 (PELV)
Standard - Safe isolation	DIN VDE 0106-101
Shipbuilding approval	Germanischer Lloyd (EMC 2), ABS, DNV
UL approvals	UL/C-UL listed UL 508
	UL/C-UL Recognized UL 60950
	UL/C-UL Listed UL 1604 Class I, Division 2, Groups A, B, C, D
Vibration (operation)	< 15 Hz, amplitude $\pm 2.5$ mm (according to IEC 60068-2-6)
Low Voltage Directive	Conformance with LV directive 2006/95/EC

### Classifications

#### eCl@ss

eCl@ss 4.0	27040603
eCl@ss 4.1	27040603
eCl@ss 5.0	27040603
eCl@ss 5.1	27040603
eCl@ss 6.0	27040603
eCl@ss 7.0	27040603
eCl@ss 8.0	27049201

#### ETIM

ETIM 2.0	EC001039
ETIM 3.0	EC001039
ETIM 4.0	EC000599
ETIM 5.0	EC000382

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## Classifications

### UNSPSC

UNSPSC 6.01	30211510
UNSPSC 7.0901	39121011
UNSPSC 11	39121011
UNSPSC 12.01	39121011
UNSPSC 13.2	39121011

## Approvals

### Approvals

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#### Approvals

UL Recognized / UL Listed / cUL Recognized / cUL Listed / GL / DNV / EAC / EAC / ABS / ABS / cULus Recognized / cULus Listed

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#### Ex Approvals

UL Listed / cUL Listed / cULus Listed

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#### Approvals submitted

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## Approval details

UL Recognized

UL Listed

cUL Recognized

cUL Listed

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## Approvals

GL

DNV

EAC

EAC

ABS

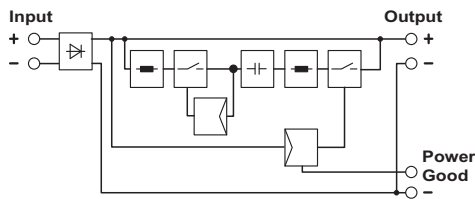
ABS

cULus Recognized

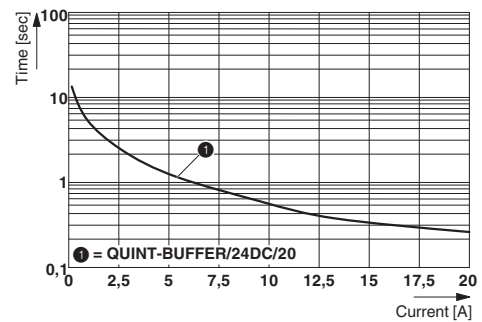
cULus Listed

## Drawings

Block diagram



Diagram



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Diagram

