

## DC/DC converters - QUINT-PS/24DC/48DC/ 5 - 2320128

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://download.phoenixcontact.com>)



Primary-switched QUINT DC/DC converter for DIN rail mounting, input: 24 V DC, output: 48 V DC/5 A, with integrated SFB (selective fuse breaking) technology, including mounted universal DIN rail adapter UTA 107/30

### Product description

The QUINT 48 V/5 A DC/DC converter converts a DC voltage of 18 V ... 32 V to an adjustable, regulated, and electrically isolated 48 V output voltage. If no regulated and stable 48 V DC voltage is available to supply a load, the DC/DC converter ensures the adjustment of the 48 V load: from an unregulated DC voltage, an adjustable output voltage of 30 V ... 56 V is generated.

### Why buy this product

- Reliable starting of difficult loads, thanks to the static POWER BOOST power reserve with up to 125% nominal current permanently
- Preventive function monitoring indicates critical operating states before errors occur
- Constant voltage: output voltage regenerated even at the end of long cables
- Electrical isolation: for setting up independent supply systems
- Support conversion to various voltage levels



### Key commercial data

Packing unit	1 pc
GTIN	 4 046356 481908
Weight per Piece (excluding packing)	1094.1 g
Custom tariff number	85044082
Country of origin	China

### Technical data

#### Dimensions

Width	48 mm
Height	130 mm
Depth	125 mm
Width with alternative assembly	122 mm
Height with alternative assembly	130 mm
Depth with alternative assembly	51 mm

## DC/DC converters - QUINT-PS/24DC/48DC/ 5 - 2320128

### Technical data

#### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C (> 60 °C derating)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
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	18 V DC ... 32 V DC
Current consumption	14 A (24 V DC)
Inrush surge current	< 15 A (typical)
Power failure bypass	> 12 ms (24 V DC)
Input fuse	25 A (internal (device protection))
Type of protection	Transient surge protection
Protective circuit/component	Varistor

#### Output data

Nominal output voltage	48 V DC ±1%
Setting range of the output voltage	30 V DC ... 56 V DC (> 48 V constant capacity)
Output current	5 A (-25 °C ... 60 °C)
	6.25 A (with POWER BOOST, -25 °C ... 40 °C permanently, U <sub>OUT</sub> = 48 V DC)
	30 A (SFB technology, 12 ms)
Derating	60 °C ... 70 °C (2.5%/K)
Connection in parallel	Yes, for redundancy and increased capacity
Connection in series	Yes
Max. capacitive load	Unlimited
Current limitation	Approximately 7 A
Control deviation	< 1 % (change in load, static 10 % ... 90 %)
	< 2 % (change in load, dynamic 10 % ... 90 %)
	< 0.1 % (change in input voltage ±10 %)
Residual ripple	< 20 mV <sub>PP</sub>
Peak switching voltages nominal load	< 10 mV <sub>PP</sub> (20 MHz)
Maximum power dissipation NO-Load	5.2 W
Power loss nominal load max.	21 W

#### General

Net weight	0.9 kg
Efficiency	> 92.5 %
Insulation voltage input/output	1.5 kV (type test)
	1 kV (routine test)
Protection class	III

## DC/DC converters - QUINT-PS/24DC/48DC/ 5 - 2320128

### Technical data

#### General

MTBF (IEC 61709, SN 29500)	> 761000 h (According to EN 29500)
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
Standard – Electrical equipment of machines	EN 60204
Standard - Electrical safety	EN 60950-1/VDE 0805 (SELV)
Shipbuilding approval	Germanischer Lloyd (EMC 1)
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)
	EN 60204 (PELV)
Standard - Safe isolation	DIN VDE 0100-410
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	Pluggable screw connection
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 stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12
Stripping length	8 mm
Screw thread	M3

#### Connection data, output

Connection method	Pluggable screw connection
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 stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12
Stripping length	7 mm

#### Signaling

Output name	DC OK active
Output description	$U_{OUT} > 0.9 \times U_N$ : High signal
Maximum inrush current	< 20 mA (short-circuit resistant)

## DC/DC converters - QUINT-PS/24DC/48DC/ 5 - 2320128

### Technical data

#### Signaling

Status display	"DC OK" LED green
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 stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12
Tightening torque, min	0.5 Nm
Tightening torque max	0.6 Nm
Screw thread	M3
Output name	POWER BOOST, active
Output description	I <sub>OUT</sub> < I <sub>N</sub> : High signal
Maximum inrush current	< 20 mA (short-circuit resistant)
Status display	"BOOST" LED yellow/I <sub>OUT</sub> > I <sub>N</sub> : LED on
Output name	U <sub>IN</sub> OK, active
Output description	U <sub>IN</sub> > 19.2 V: High signal
Maximum inrush current	≤ 20 mA (short-circuit resistant)
Status display	LED "U <sub>IN</sub> < 19.2 V" yellow/U <sub>IN</sub> < 19.2 V DC: LED on
Output name	DC OK floating
Output description	Relay
Output voltage	≤ 30 V AC/DC
Maximum inrush current	≤ 100 mA
Note on status display	U <sub>OUT</sub> > 0.9 x U <sub>N</sub> : Contact closed

### Classifications

#### eCl@ss

eCl@ss 4.0	27250311
eCl@ss 4.1	27250311
eCl@ss 5.0	27242213
eCl@ss 5.1	27210901
eCl@ss 6.0	27210901
eCl@ss 7.0	27210901
eCl@ss 8.0	27210901

#### ETIM

ETIM 4.0	EC002542
ETIM 5.0	EC002046

#### UNSPSC

UNSPSC 6.01	30211502
-------------	----------

# DC/DC converters - QUINT-PS/24DC/48DC/ 5 - 2320128

## Classifications

### UNSPSC

UNSPSC 7.0901	39121004
UNSPSC 11	39121004
UNSPSC 12.01	39121004
UNSPSC 13.2	39121004

## Approvals

### Approvals

#### Approvals

UL Recognized / UL Listed / cUL Recognized / cUL Listed / IEC CB Scheme / GL / ABS / BV / RINA / NK / LR / DNV / cULus Recognized / cULus Listed

#### Ex Approvals

UL Listed / cUL Listed / cULus Listed

#### Approvals submitted

### Approval details

UL Recognized

UL Listed

cUL Recognized

cUL Listed

IECEE CB Scheme

## DC/DC converters - QUINT-PS/24DC/48DC/ 5 - 2320128

### Approvals

GL

ABS

BV

RINA

NK

LR

DNV	
mm <sup>2</sup> /AWG/kcmil	4
Nominal current I <sub>N</sub>	15 A
Nominal voltage U <sub>N</sub>	750 V

cULus Recognized

cULus Listed

### Accessories

#### Accessories

#### Assembly adapter

Assembly adapters - UTA 107/30 - 2320089



Universal DIN rail adapter

## DC/DC converters - QUINT-PS/24DC/48DC/ 5 - 2320128

### Accessories

Assembly adapters - UWA 182/52 - 2938235



Universal wall adapter

---

Assembly adapters - QUINT-PS-ADAPTERS7/1 - 2938196



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

---

### Power supply

Power supply unit - QUINT-PS/ 1AC/24DC/20 - 2866776



Primary-switched QUINT power supply for DIN rail mounting, input: 1-phase, output: 24 V DC/20 A, with integrated SFB technology (selective fuse breaking).

---

Power supply unit - QUINT-PS/ 3AC/24DC/20 - 2866792



Primary-switched QUINT power supply for DIN rail mounting, input: 3-phase, output: 24 V DC/20 A, with integrated SFB technology (selective fuse breaking technology).

---

### Redundancy module

Redundancy module - TRIO-DIODE/48DC/2X10/1X20 - 2866527



Redundancy module with function monitoring, 48 V DC, 2x 10 A, 1x 20 A

---

### Thermomagnetic device circuit breakers

## DC/DC converters - QUINT-PS/24DC/48DC/ 5 - 2320128

### Accessories

Thermomagnetic device circuit breaker - CB TM1 1A SFB P - 2800836



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

Thermomagnetic device circuit breaker - CB TM1 2A SFB P - 2800837



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

Thermomagnetic device circuit breaker - CB TM1 12A SFB P - 2800844



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

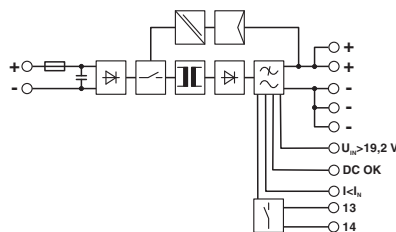
Thermomagnetic device circuit breaker - CB TM1 16A SFB P - 2800845



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

### Drawings

Block diagram







## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [phoenix contact manufacturer](#):*

Other Similar products are found below :

[1203259](#) [3240366](#) [1893300](#) [1623633](#) [2814605](#) [3240098](#) [0201391](#) [CRIMPFOX 16 S](#) [CRIMPSET 25](#) [7001438](#) [ETD-BL-1T-F-300S](#) [MCR-1CLP-I-I-00](#) [MCR-4CLP-I-I-00](#) [MCR-DAC 8-I- 4-BUS](#) [FL EPA WMS](#) [FLK 50/EZ-DR/ 400/KONFEK/S](#) [FLS PB M12 DO 8 M12-2A](#) [PPS CD BLADE](#) [PSI-MOS-DNET CAN/FO 660/BM](#) [PSM-ME-RS232/RS232-P](#) [PSM PTK-4](#) [PSM-SET-FSMA/4-KT](#) [PSR-SCP-24DC/TS/SDI8/SDIO](#) [PSR-SCP- 24DC/URD3/4X1/2X2](#) [PT 2X2- 5DC-ST](#) [1202580](#) [1203534](#) [1205985](#) [1206308](#) [1207420](#) [1209091](#) [QUINT-BAT/24DC/12AH](#) [1204038](#) [1212041](#) [1212096](#) [1212162](#) [1212171](#) [1212202](#) [1212250](#) [1212304](#) [1212380](#) [1212480](#) [1212485](#) [1212488](#) [1212500](#) [1212511](#) [1212578](#) [1212584](#) [1212585](#) [1212592](#)