

DC/DC converters - QUINT-PS/24DC/12DC/ 8 - 2320115

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Primär getakteter QUINT DC/DC-Wandler zur Tragschienenmontage, Eingang: 24 V DC, Ausgang: 12 V DC / 8 A, mit integrierter SFB Technology (Selective Fuse Breaking Technology), inkl. montiertem Universaltragschienenadapter UTA 107/30

Product description

The QUINT 12 V/8 A DC/DC converter converts a DC voltage of 18 V ... 32 V to an adjustable, regulated, and electrically isolated 12 V output voltage. If no regulated and stable 12 V DC voltage is available to supply a load, the DC/DC converter ensures the adjustment of the 12 V load: from an unregulated DC voltage, an adjustable output voltage of 10 V ... 18 V is generated.

Product Features

- ✓ 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
- ✓ Electrical isolation: for setting up independent supply systems
- ✓ Constant voltage: output voltage regenerated even at the end of long cables
- ✓ Support conversion to various voltage levels



Key commercial data

| | |
|----------------------|---|
| Packing unit | 1 PCE |
| GTIN |  4 046356 482233 |
| Custom tariff number | 85044082 |
| Country of origin | CHINA |

Technical data

Input data

| | |
|-----------------------------|--|
| Nominal input voltage | 24 V DC |
| Nominal input voltage range | 18 V DC ... 32 V DC |
| Nominal input voltage range | 14 V DC ... 18 V DC (Consider derating during operation) |
| Input voltage range DC | <p></p> |

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Technical data

Input data

| | |
|------------------------------|-------------------------------------|
| Input voltage range DC | <p></p> |
| Current consumption | 6 A |
| Inrush surge current | < 15 A (typical) |
| Power failure bypass | > 10 ms (24 V DC) |
| Input fuse | 15 A (internal (device protection)) |
| Type of protection | Transient surge protection |
| Protective circuit/component | Varistor |

Output data

| | |
|--------------------------------------|---|
| Nominal output voltage | 12 V DC \pm 1% |
| Setting range of the output voltage | 5 V DC ... 18 V DC (> 12 V constant capacity) |
| Output current | 8 A (-25 °C ... 60 °C) |
| Output current | 10 A (with POWER BOOST, -25 °C ... 40 °C permanent, U _{OUT} = 12 V DC) |
| Output current | 48 A (SFB technology, 12 ms) |
| Magnetic fuse tripping | B2 |
| Magnetic fuse tripping | B4 |
| Magnetic fuse tripping | C2 |
| 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 | Approx. 15 A |
| Control deviation | < 1 % (change in load, static 10% ... 90%) |
| Control deviation | < 2 % (change in load, dynamic 10% ... 90%) |
| Control deviation | < 0.1 % (change in input voltage \pm 10%) |
| Residual ripple | < 20 mV _{PP} |
| Peak switching voltages nominal load | < 10 mV _{PP} (20 MHz) |
| Maximum power dissipation NO-Load | 2 W |
| Power loss nominal load max. | 10.5 W |

General data

| | |
|----------------------------------|--------|
| Width | 32 mm |
| Height | 130 mm |
| Depth | 125 mm |
| Width with alternative assembly | 122 mm |
| Height with alternative assembly | 130 mm |
| Depth with alternative assembly | 35 mm |
| Net weight | 0.7 kg |

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Technical data

General data

| | |
|--|--|
| Efficiency | > 90 % |
| Insulation voltage input/output | 1.5 kV (type test) |
| Insulation voltage input/output | 1 kV (routine test) |
| Degree of protection | IP20 |
| Protection class | III |
| MTBF (IEC 61709, SN 29500) | > 843000 h (According to EN 29500) |
| 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, no condensation) |
| 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 |
| Noise immunity | EN 61000-6-2:2005 |
| 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) |
| Standard – Safety extra-low voltage | EN 60204 (PELV) |
| Standard - Safe isolation | DIN VDE 0100-410 |
| UL approvals | UL/C-UL listed UL 508 |
| UL approvals | UL/C-UL Recognized UL 60950 |
| UL approvals | 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 ² |
| Conductor cross section solid max. | 2.5 mm ² |
| Conductor cross section stranded min. | 0.2 mm ² |
| Conductor cross section stranded max. | 2.5 mm ² |
| Conductor cross section AWG/kcmil min. | 24 |
| Conductor cross section AWG/kcmil max | 12 |
| Stripping length | 8 mm |
| Screw thread | M3 |

Connection data, output

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Technical data

Connection data, output

| | |
|--|----------------------------|
| Connection method | Pluggable screw connection |
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 2.5 mm ² |
| Conductor cross section stranded min. | 0.2 mm ² |
| Conductor cross section stranded max. | 2.5 mm ² |
| 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) |
| Status display | "DC OK" LED green |
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 2.5 mm ² |
| Conductor cross section stranded min. | 0.2 mm ² |
| Conductor cross section stranded max. | 2.5 mm ² |
| 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 | $I_{OUT} < I_N$: High signal |
| Maximum inrush current | < 20 mA (short-circuit resistant) |
| Status display | "BOOST" LED yellow/ $I_{OUT} > I_N$: LED on |
| Output name | U_{IN} OK, active |
| Output description | $U_{IN} > 19.2$ V: High signal |
| Maximum inrush current | ≤ 20 mA (short-circuit resistant) |
| Status display | LED " $U_{IN} < 19.2$ V" yellow/ $U_{IN} < 19.2$ V DC: LED on |

Classifications

ETIM

| | |
|----------|----------|
| ETIM 4.0 | EC002542 |
| ETIM 5.0 | EC002046 |

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Classifications

UNSPSC

| | |
|---------------|----------|
| UNSPSC 11 | 39121004 |
| UNSPSC 12.01 | 39121004 |
| UNSPSC 13.2 | 39121004 |
| UNSPSC 6.01 | 30211502 |
| UNSPSC 7.0901 | 39121004 |

eCl@ss

| | |
|------------|----------|
| eCl@ss 4.0 | 27250311 |
| eCl@ss 4.1 | 27250311 |
| eCl@ss 5.0 | 27242213 |
| eCl@ss 5.1 | 27242213 |
| eCl@ss 6.0 | 27049005 |
| eCl@ss 7.0 | 27210901 |
| eCl@ss 8.0 | 27210901 |

Approvals

Approvals

Approvals

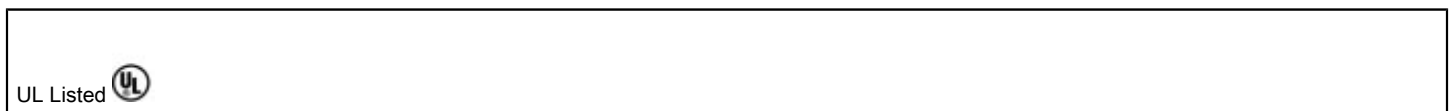
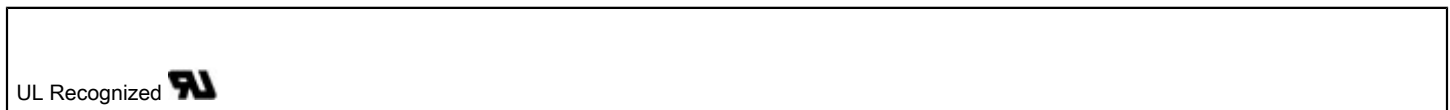
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Ex Approvals

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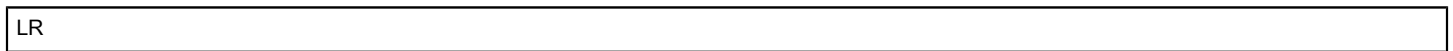
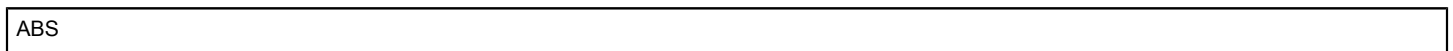
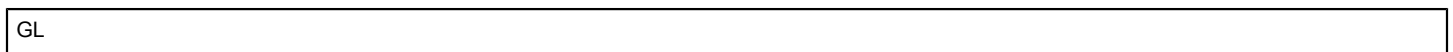
Approvals submitted

Approval details



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Approvals



Accessories

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Accessories

Power supply unit - QUINT-PS/ 1AC/24DC/10 - 2866763



Primär getaktete QUINT Stromversorgung zur Tragschienenmontage, Eingang: 1-phasig, Ausgang: 24 V DC / 10 A, mit integrierter SFB Technology (Selective Fuse Breaking Technology), inkl. montiertem Universaltragschienenadapter UTA 107

Power supply unit - QUINT-PS/ 3AC/24DC/10 - 2866705



Primär getaktete QUINT Stromversorgung zur Tragschienenmontage, Eingang: 3-phasig, Ausgang: 24 V DC / 10 A, mit integrierter SFB Technology (Selective Fuse Breaking Technology), inkl. montiertem Universaltragschienenadapter UTA 107

Redundancy module - TRIO-DIODE/12-24DC/2X10/1X20 - 2866514



Redundancy module with function monitoring, 12-24 V DC, 2x 10 A, 1x 20 A

Assembly adapters - UTA 107/30 - 2320089



Universal DIN rail adapter

Assembly adapters - UWA 182/52 - 2938235



Universal wall adapter

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Accessories

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



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

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 3A SFB P - 2800838



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

Thermomagnetic device circuit breaker - CB TM1 4A SFB P - 2800839



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

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Accessories

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.

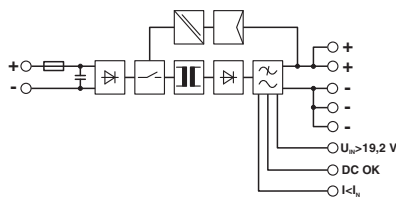
Thermomagnetic device circuit breaker - CB TM1 16A SFB P - 2800845



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

Drawings

Block diagram



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- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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