

Power supply unit - QUINT-PS/ 1AC/48DC/20 - 2866695

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Primary-switched QUINT POWER power supply for DIN rail mounting with SFB (Selective Fuse Breaking) Technology, input: 1-phase, output: 48 V DC/20 A

Product description

QUINT POWER power supplies with maximum functionality

QUINT POWER circuit breakers magnetically and therefore quickly trip at six times the nominal current, for selective and therefore cost-effective system protection. The high level of system availability is additionally ensured, thanks to preventive function monitoring, as it reports critical operating states before errors occur.

Reliable starting of heavy loads takes place via the static power reserve POWER BOOST. Thanks to the adjustable voltage, all ranges between 5 V DC ... 56 V DC are covered.

Product Features

- Reliable starting of difficult loads
- Quick tripping of standard circuit breakers
- Preventive function monitoring



Key commercial data

| | |
|--------------------------------------|------------|
| Packing unit | 1 pc |
| Weight per Piece (excluding packing) | 3820.0 GRM |
| Custom tariff number | 85044030 |
| Country of origin | Thailand |

Technical data

Dimensions

| | |
|----------------------------------|--------|
| Width | 180 mm |
| Height | 130 mm |
| Depth | 125 mm |
| Width with alternative assembly | 122 mm |
| Height with alternative assembly | 130 mm |
| Depth with alternative assembly | 183 mm |

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Technical data

Ambient conditions

| | |
|--|--|
| Degree of protection | IP20 |
| Ambient temperature (operation) | -25 °C ... 70 °C (> 60°C derating, startup at -40°C type-tested) |
| 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 range | 100 V AC ... 240 V AC |
| | 120 V DC ... 300 V DC (UL 508: ≤ 250 V DC) |
| Input voltage range | 85 V AC ... 264 V AC |
| | 90 V DC ... 300 V DC (UL 508: ≤ 250 V DC) |
| Short-term input voltage | 300 V AC |
| AC frequency range | 45 Hz ... 65 Hz |
| Frequency range DC | 0 Hz |
| Current consumption | 8.7 A (120 V AC) |
| | 4.5 A (230 V AC) |
| | 8.8 A (120 V DC) |
| | 4.2 A (250 V DC) |
| Inrush surge current | < 15 A (typical) |
| Power failure bypass | > 25 ms (120 V AC) |
| | > 25 ms (230 V AC) |
| Input fuse | 20 A (fast blow, internal) |
| Choice of suitable fuses | 16 A ... 25 A (AC: Characteristics B, C, D, K) |
| 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 | 20 A (-25°C ... 60°C, U _{OUT} = 48 V DC) |
| | 22.5 A (with POWER BOOST, -25 °C ... 40 °C permanently, U _{OUT} = 48 V DC) |
| | 100 A (SFB technology, 12 ms) |
| | 22.5 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 |
| Current limitation | Approx. I _{BOOST} = 22.5 A (for short-circuit) |

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Output data

| | |
|-----------------------------------|---|
| Control deviation | < 1 % (change in load, static 10 % ... 90 %) |
| | < 3 % (change in load, dynamic 10 % ... 90 %) |
| | < 0.1 % (change in input voltage ± 10 %) |
| Residual ripple | < 50 mV _{pp} (with nominal values) |
| Maximum power dissipation NO-Load | 12 W |
| Power loss nominal load max. | 74 W |

General

| | |
|--|---|
| Net weight | 3.3 kg |
| Efficiency | > 93 % (for 230 V AC and nominal values) |
| Insulation voltage input/output | 4 kV AC (type test) 2 kV AC (routine test) |
| Protection class | I > 523000 h (40°C) |
| 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 emission | EN 50081-2 |
| Low Voltage Directive | Conformance with LV directive 2006/95/EC |
| Standard – Electrical equipment of machines | EN 60204 |
| Standard - Electrical safety | IEC 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 | IEC 60950-1 (SELV) and EN 60204 (PELV) |
| Standard - Safe isolation | DIN VDE 0100-410 DIN VDE 0106-1010 |
| Standard – Protection against electric shock | DIN 57100-410 |
| Standard – Protection against shock currents, basic requirements for protective separation in electrical equipment | DIN VDE 0106-101 |
| Standard – Limitation of mains harmonic currents | EN 61000-3-2 |
| Standard - Equipment safety | BG (design tested) |
| Information technology equipment - safety (CB scheme) | IEC 60950 (2 nd Edition) |
| UL approvals | 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) |
| Surge voltage category | III |

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Connection data, input

| | |
|--|---------------------|
| Connection method | Screw connection |
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 6 mm ² |
| Conductor cross section stranded min. | 0.2 mm ² |
| Conductor cross section stranded max. | 4 mm ² |
| Conductor cross section AWG/kcmil min. | 14 |
| Conductor cross section AWG/kcmil max | 10 |
| Stripping length | 7 mm |
| Screw thread | M3 |

Connection data, output

| | |
|--|---------------------|
| Connection method | Screw connection |
| Conductor cross section solid min. | 0.5 mm ² |
| Conductor cross section solid max. | 16 mm ² |
| Conductor cross section stranded min. | 0.5 mm ² |
| Conductor cross section stranded max. | 16 mm ² |
| Conductor cross section AWG/kcmil min. | 8 |
| Conductor cross section AWG/kcmil max | 6 |
| Stripping length | 10 mm |

Signaling

| | |
|--|---|
| Output name | DC OK active |
| Output description | $U_{OUT} > 0.9 \times U_N$: High signal |
| Maximum switching voltage | + 24 V DC |
| Output voltage | + 48 V DC |
| Maximum inrush current | 20 mA (short-circuit resistant) |
| Continuous load current | ≤ 20 mA |
| Status display | $U_{OUT} > 0.9 \times U_N$: "DC OK" LED green |
| Note on status display | $U_{OUT} < 0.9 \times U_N$: Flashing "DC OK" LED |
| | $I_{OUT} < I_N$: LED ON |
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 6 mm ² |
| Conductor cross section stranded min. | 0.2 mm ² |
| Conductor cross section stranded max. | 4 mm ² |
| Conductor cross section AWG/kcmil min. | 24 |
| Conductor cross section AWG/kcmil max | 10 |
| Tightening torque, min | 0.5 Nm |
| Tightening torque max | 0.6 Nm |

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Signaling

| | |
|---------------------------|--|
| Screw thread | M3 |
| Output name | DC OK floating |
| Output description | Relay contact, $U_{OUT} > 0.9 \times U_N$: Contact closed |
| Maximum switching voltage | ≤ 30 V AC |
| | 24 V DC |
| Maximum inrush current | 0.5 A |
| | 1 A |
| Continuous load current | 1 A |
| Status display | $U_{OUT} > 0.9 \times U_N$: "DC OK" LED green |
| Note on status display | $U_{OUT} < 0.9 \times U_N$: Flashing "DC OK" LED |
| Output name | POWER BOOST, active |
| Output description | $I_{OUT} < I_N$: High signal |
| Output voltage | + 48 V DC |
| Maximum inrush current | 20 mA (short-circuit resistant) |
| Continuous load current | ≤ 20 mA |
| Status display | $I_{OUT} > I_N$: LED "BOOST" yellow |

Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 4.0 | 27040702 |
| eCl@ss 4.1 | 27040702 |
| eCl@ss 5.0 | 27242213 |
| eCl@ss 5.1 | 27242213 |
| eCl@ss 6.0 | 27049002 |
| eCl@ss 7.0 | 27049002 |
| eCl@ss 8.0 | 27049002 |

ETIM

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|----------|----------|
| ETIM 3.0 | EC001039 |
| ETIM 4.0 | EC002540 |
| ETIM 5.0 | EC002540 |

UNSPSC

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

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UNSPSC

| | |
|--------------|----------|
| UNSPSC 12.01 | 39121004 |
| UNSPSC 13.2 | 39121004 |

Approvals

Approvals

Approvals

CSA / UL Recognized / UL Listed / IEC EE CB Scheme / CSA / UL Recognized / UL Listed / IEC EE CB Scheme / GL

Ex Approvals

Approvals submitted

Approval details

CSA

UL Recognized

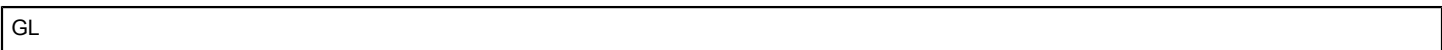
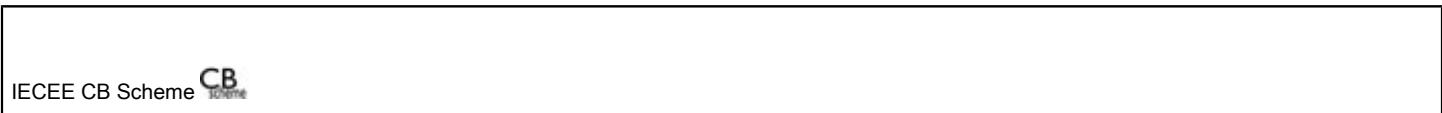
UL Listed

IECEE CB Scheme

CSA

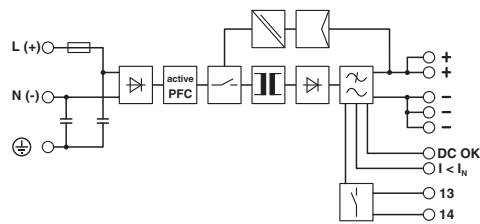
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Approvals



Drawings

Block diagram



Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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