

Power supply unit - QUINT4-PS/1AC/24DC/5 - 2904600

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Primary-switched QUINT POWER power supply for DIN rail mounting with free choice of output characteristic curve and SFB (Selective Fuse Breaking) technology, input: 1-phase, output: 24 V DC / 5 A



Key Commercial Data

| | |
|--------------|--|
| Packing unit | 1 |
| GTIN |  4 046356 985321 |

Technical data

Dimensions

| | |
|----------------------------------|--------|
| Width | 36 mm |
| Height | 130 mm |
| Depth | 125 mm |
| Width with alternative assembly | 122 mm |
| Height with alternative assembly | 130 mm |
| Depth with alternative assembly | 39 mm |

Ambient conditions

| | |
|--|--|
| Degree of protection | IP20 |
| Ambient temperature (operation) | -25 °C ... 70 °C (> 60 °C Derating: 2,5 %/K) |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Max. permissible relative humidity (operation) | ≤ 95 % (at 25 °C, non-condensing) |
| Maximum altitude | ≤ 5000 m (> 2000 m, observe derating) |

Input data

| | |
|-----------------------------|-----------------------|
| Nominal input voltage range | 100 V AC ... 240 V AC |
| | 110 V DC ... 250 V DC |

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Input data

| | |
|-------------------------------------|--|
| Input voltage range | 100 V AC ... 240 V AC -15 % ... +10 % |
| | 90 V DC ... 350 V DC (-18 % ... +40 %) |
| Dielectric strength maximum | 300 V AC 30 s |
| AC frequency range | 50 Hz ... 60 Hz -10 % ... +10 % |
| Discharge current to PE | < 3.5 mA |
| Current consumption | 1.7 A (100 V AC) |
| | 0.8 A (240 V AC) |
| Inrush surge current | < 15 A (at 25 °C) |
| Power failure bypass | ≥ 24 ms (120 V AC) |
| | ≥ 32 ms (230 V AC) |
| Input fuse | 6.3 A (slow-blow, internal) |
| Choice of suitable circuit breakers | 6 A ... 16 A (Characteristic B, C, D, K or comparable) |
| Type of protection | Transient surge protection |
| Protective circuit/component | Varistor, gas-filled surge arrester |

Output data

| | |
|---|--|
| Nominal output voltage | 24 V DC |
| Setting range of the output voltage (U_{Set}) | 24 V DC ... 29.5 V DC (constant capacity) |
| Nominal output current (I_N) | 5 A |
| Static Boost ($I_{Stat.Boost}$) | 6.25 A |
| Dynamic Boost ($I_{Dyn.Boost}$) | 10 A (5 s) |
| Selective Fuse Breaking (I_{SFB}) | 30 A (15 ms) |
| Derating | > 60 °C (2.5 %/K) |
| Connection in parallel | Yes, for redundancy and increased capacity |
| Connection in series | Yes |
| Control deviation | < 0.5 % (Static load change 10 % ... 90 %) |
| | < 4 % (Dynamic load change 10 % ... 90 %, (10 Hz)) |
| | < 0.25 % (Input voltage change ±10%) |
| Residual ripple | < 30 mV _{PP} (with nominal values) |
| Output power | 120 W |
| Typical response time | 300 ms (according to SLEEP MODE) |
| Maximum power dissipation in no-load condition | < 3 W (230 V AC) |
| Power loss nominal load max. | < 15 W (230 V AC) |

General

| | |
|---------------------------------|--|
| Net weight | 0.7 kg |
| Efficiency | > 89 % (for 230 V AC and nominal values) |
| Insulation voltage input/output | 3.5 kV AC (type test) |

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General

| | |
|----------------------------|---|
| | 2 kV AC (routine test) |
| Protection class | I |
| MTBF (IEC 61709, SN 29500) | > 1440000 h (25 °C) |
| | > 895000 h (40°C) |
| | > 421000 h (60°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 |

Connection data, input

| | |
|---------------------------------------|---------------------|
| Connection method | Screw connection |
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 2.5 mm ² |
| Conductor cross section flexible min. | 0.2 mm ² |
| Conductor cross section flexible max. | 2.5 mm ² |
| Conductor cross section AWG min. | 30 |
| Conductor cross section AWG max. | 12 |
| Stripping length | 6.5 mm |

Connection data, output

| | |
|---------------------------------------|---------------------|
| Connection method | Screw connection |
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 2.5 mm ² |
| Conductor cross section flexible min. | 0.2 mm ² |
| Conductor cross section flexible max. | 2.5 mm ² |
| Conductor cross section AWG min. | 30 |
| Conductor cross section AWG max. | 12 |
| Stripping length | 6.5 mm |

Connection data for signaling

| | |
|---------------------------------------|---------------------|
| Connection method | Push-in connection |
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 1.5 mm ² |
| Conductor cross section flexible min. | 0.2 mm ² |
| Conductor cross section flexible max. | 1.5 mm ² |
| Conductor cross section AWG min. | 24 |
| Conductor cross section AWG max. | 16 |
| Stripping length | 8 mm |

Standards and Regulations

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Standards and Regulations

| | |
|--|--|
| Electromagnetic compatibility | Conformance with EMC Directive 2004/108/EC |
| Standards/regulations | EN 61000-4-2 |
| | EN 61000-4-3 |
| | EN 61000-4-4 |
| | EN 61000-4-5 |
| | EN 61000-4-6 |
| | EN 61000-4-8 |
| | EN 61000-4-11 |
| | EN 61000-4-9 |
| | EN 61000-4-12 |
| | EN 61000-4-16 |
| | EN 61000-4-18 |
| Standard - Safety of transformers | EN 61558-2-16 (air clearances and creepage distances only) |
| Standard - Electrical safety | IEC 60950-1/VDE 0805 (SELV) |
| Standard - power supply devices for low voltage with DC output | EN 61204-3 |
| 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 60204-1 (PELV) |
| Standard - Safe isolation | DIN VDE 0100-410 |
| Standard – Limitation of mains harmonic currents | EN 61000-3-2 |
| Vibration (operation) | < 15 Hz, amplitude ± 2.5 mm (according to IEC 60068-2-6) |
| | 15 Hz ... 150 Hz, 2.3g, 90 min. |
| Low Voltage Directive | Conformance with Low Voltage Directive 2014/35/EC |
| Rail applications | EN 50121-3-2 |
| Overvoltage category (EN 60950-1) | II |
| Overvoltage category (EN 61010-1) | II |
| Overvoltage category (EN 62477-1) | III |

Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 5.1 | 27242213 |
| eCl@ss 6.0 | 27049005 |
| eCl@ss 8.0 | 27049002 |
| eCl@ss 9.0 | 27040701 |

ETIM

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| ETIM 5.0 | EC002540 |
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Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / EAC / UL Listed / cUL Listed / cULus Recognized

Ex Approvals

Approvals submitted

Approval details

- UL Recognized
- cUL Recognized
- EAC
- UL Listed
- cUL Listed
- cULus Recognized

Drawings

Block diagram



