

Uninterruptible power supply - QUINT-UPS/ 24DC/ 24DC/10 - 2320225

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Uninterruptible power supply with IQ technology for DIN rail mounting, input: 24 V DC, output: 24 V DC/10 A, including mounted universal DIN rail adapter UTA 107/30

Product Description

The UPS module for 24 V DC with output currents ranging from 5 to 40 A allows you to create a custom solution combining a power supply, UPS module, and energy storage.

Your advantages

- ✓ Easy handling thanks to automatic battery detection, tool-free battery replacement during operation, and communication via the IFS interface
- ✓ Optimum use of the buffer time and preventive monitoring of the energy storage
- ✓ Rapid battery charging
- ✓ Comprehensive signaling and parameterization
- ✓ Fast tripping of standard circuit breakers with SFB (selective fuse breaking) technology
- ✓ Reliable starting of difficult loads with the static POWER BOOST power reserve with up to 1.5 times the nominal current permanently



Key Commercial Data

| | |
|--------------------------------------|---------------|
| Packing unit | 1 pc |
| GTIN | |
| GTIN | 4046356554206 |
| Weight per Piece (excluding packing) | 500.000 g |
| Custom tariff number | 85371091 |
| Country of origin | China |

Technical data

Dimensions

| | |
|---------------------------------|--------|
| Width | 35 mm |
| Height | 130 mm |
| Depth | 125 mm |
| Width with alternative assembly | 123 mm |

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Technical data

Dimensions

| | |
|----------------------------------|---------------|
| Height with alternative assembly | 130 mm |
| Depth with alternative assembly | 39 mm |
| Installation distance right/left | 5 mm / 5 mm |
| Installation distance top/bottom | 50 mm / 50 mm |

Ambient conditions

| | |
|--|--------------------------------|
| Degree of protection | IP20 |
| Ambient temperature (operation) | -25 °C ... 70 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Max. permissible relative humidity (operation) | ≥ 95 % (25 °C, non-condensing) |
| Climatic class | 3K3 (in acc. with EN 60721) |

Input data

| | |
|--|---------------------------------|
| Input voltage | 24 V DC |
| Nominal input voltage | 24 V DC |
| Input voltage range | 18 V DC ... 30 V DC |
| Current consumption (maximum) | 19 A (maximum, mains operation) |
| Current consumption (charging process) | 4 A (Charging, mains operation) |
| Fixed backup threshold | ≤ 22 V DC |
| Variable connect threshold | 1 V/0.1 s |

Output data (24 V DC mains operation)

| | |
|---|-------------------------|
| Nominal output voltage | 24 V DC |
| Output voltage range (depends on the input voltage) | 18 V DC ... 30 V DC |
| Nominal output current (I _N) | 10 A (-25 °C ... 60 °C) |
| POWER BOOST (I _{Boost}) | 15 A (-25 °C ... 40 °C) |
| Selective Fuse Breaking (I _{SFB}) | 60 A (-25 °C ... 60 °C) |

Output data (24 V DC battery operation)

| | |
|---|--|
| Nominal output voltage | 24 V DC |
| Output voltage range | 19.2 V DC ... 27.6 V DC (U _{OUT} = U _{BAT} - 0,5 V DC) |
| Nominal output current (I _N) | 10 A (-25 °C ... 60 °C) |
| POWER BOOST (I _{Boost}) | 15 A (-25 °C ... 40 °C) |
| Selective Fuse Breaking (I _{SFB}) | 65 A (-25 °C ... 60 °C) |

General output data

| | |
|------------|---|
| Efficiency | > 98 % (Mains operation, with charged energy storage) |
|------------|---|

General

| | |
|----------------------------|-------------------------------------|
| IQ technology | Yes |
| Net weight | 0.5 kg |
| Protection class | III |
| MTBF (IEC 61709, SN 29500) | > 500000 h (40 °C) |
| Mounting position | horizontal DIN rail NS 35, EN 60715 |

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Technical data

General

| | |
|-----------------------|--|
| Assembly instructions | alignable: horizontal 5 mm, vertical 50 mm |
|-----------------------|--|

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 flexible min. | 0.2 mm ² |
| Conductor cross section flexible max. | 2.5 mm ² |
| Conductor cross section AWG min. | 16 |
| Conductor cross section AWG max. | 12 |
| Stripping length | 7 mm |
| Screw thread | M4 |

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 flexible min. | 0.2 mm ² |
| Conductor cross section flexible max. | 2.5 mm ² |
| Conductor cross section AWG min. | 16 |
| Conductor cross section AWG max. | 12 |
| Stripping length | 7 mm |
| Screw thread | M4 |

Connection data for signaling

| | |
|---------------------------------------|---------------------|
| 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. | 24 |
| Conductor cross section AWG max. | 12 |
| Screw thread | M4 |

Standards

| | |
|--|----------------------------|
| EMC requirements for noise immunity | EN 61000-6-1 |
| | EN 61000-6-2 |
| EMC requirements for noise emission | EN 61000-6-3 |
| | EN 61000-6-4 |
| 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) |
| Rail applications | EN 50121-4 |

Conformance/approvals

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Technical data

Conformance/approvals

| | |
|--------------|--|
| 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) |

EMC data

| | |
|-------------------------------|--|
| Electromagnetic compatibility | Conformance with EMC Directive 2014/30/EU |
| Low Voltage Directive | Conformance with Low Voltage Directive 2014/35/EC |
| Electrostatic discharge | EN 61000-4-2 |
| Contact discharge | 8 kV (Test Level 4) |
| Discharge in air | 15 kV (Test Level 4) |
| Electromagnetic HF field | EN 61000-4-3 |
| Frequency range | 80 MHz ... 1 GHz |
| Test field strength | 20 V/m |
| Frequency range | 1 GHz ... 3 GHz |
| Test field strength | 10 V/m |
| Frequency range | 2 GHz ... 3 GHz |
| Test field strength | 3 V/m |
| Comments | Criterion A |
| Fast transients (burst) | EN 61000-4-4 |
| Input | 2 kV (Test Level 3 - asymmetrical) |
| Output | 2 kV (Test Level 3 - asymmetrical) |
| Signal | 2 kV (Test Level 4 - asymmetrical) |
| Comments | Criterion A |
| Surge voltage load (surge) | EN 61000-4-5 |
| Input | 1 kV (Test Level 2 - symmetrical) |
| | 2 kV (Test Level 3 - asymmetrical) |
| Output | 1 kV (Test Level 2 - symmetrical) |
| | 2 kV (Test Level 3 - asymmetrical) |
| Signal | 1 kV (Test Level 2 - asymmetrical) |
| Comments | Criterion A |
| Conducted interference | EN 61000-4-6 |
| I/O/S | asymmetrical |
| Frequency range | 0.15 MHz ... 80 MHz |
| Voltage | 10 V (Test Level 3) |
| Comments | Criterion A |
| Criterion A | Normal operating behavior within the specified limits. |
| Criterion B | Temporary impairment to operational behavior that is corrected by the device itself. |

Environmental Product Compliance

| | |
|------------|----------------|
| REACH SVHC | Lead 7439-92-1 |
|------------|----------------|

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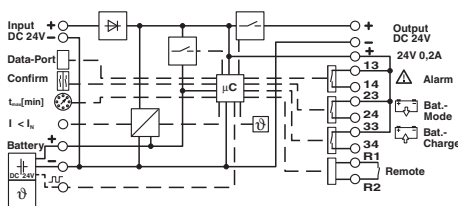
Technical data

Environmental Product Compliance

| | |
|------------|---|
| China RoHS | Environmentally Friendly Use Period = 25; |
| | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

Drawings

Block diagram



Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27040705 |
| eCl@ss 11.0 | 27040705 |
| eCl@ss 4.0 | 27040600 |
| eCl@ss 4.1 | 27040600 |
| eCl@ss 5.0 | 27040600 |
| eCl@ss 5.1 | 27040600 |
| eCl@ss 6.0 | 27040600 |
| eCl@ss 7.0 | 27040603 |
| eCl@ss 9.0 | 27040705 |

ETIM

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|----------|----------|
| ETIM 3.0 | EC001039 |
| ETIM 4.0 | EC000382 |
| ETIM 6.0 | EC000382 |
| ETIM 7.0 | EC000382 |

UNSPSC

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|---------------|----------|
| UNSPSC 6.01 | 30211510 |
| UNSPSC 7.0901 | 39121011 |
| UNSPSC 11 | 39121011 |
| UNSPSC 12.01 | 39121011 |
| UNSPSC 13.2 | 39121011 |
| UNSPSC 18.0 | 39121011 |
| UNSPSC 19.0 | 39121011 |
| UNSPSC 20.0 | 39121011 |

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Classifications

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121011 |
|-------------|----------|

Approvals

Approvals

Approvals

DNV / BV / LR / ABS / UL Listed / UL Recognized / cUL Recognized / cUL Listed / EAC / EAC / cULus Recognized / cULus Listed

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approval details

| | | | |
|----------------------------|--|---|------------|
| DNV | | http://exchange.dnv.com/tari/ | TAA0000265 |
| Nominal voltage UN | | 500 V | |
| Nominal current IN | | 41 A | |
| mm ² /AWG/kcmil | | 6 | |

| | | | |
|----|--|---|-------------|
| BV | | http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials | 41516/A0 BV |
|----|--|---|-------------|

| | | | |
|----|--|---|----------|
| LR | | http://www.lr.org/en | 17/20032 |
|----|--|---|----------|

| | | | |
|-----|--|---|----------------|
| ABS | | http://www.eagle.org/eagleExternalPortalWEB/ | 20-2022474-PDA |
|-----|--|---|----------------|

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|-----------|--|---|---------------|
| UL Listed | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 123528 |
|-----------|--|---|---------------|

| | | | |
|---------------|--|---|---------------|
| UL Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 211944 |
|---------------|--|---|---------------|

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Approvals

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|----------------|--|---|---------------|
| cUL Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 211944 |
|----------------|--|---|---------------|

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|------------|--|---|---------------|
| cUL Listed | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 123528 |
|------------|--|---|---------------|

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| EAC | | EAC-Zulassung |
|-----|--|---------------|

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|-----|--|---------------------|
| EAC | | RU*DE*08.B.01873/19 |
|-----|--|---------------------|

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| cULus Recognized | | | |
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| cULus Listed | | | |
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Accessories

Accessories

Assembly adapter

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



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

Assembly adapters - UTA 107/30 - 2320089



Universal DIN rail adapter

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Accessories

Assembly adapters - UWA 182/52 - 2938235



Universal wall adapter for securely mounting the device in the event of strong vibrations. The device is screwed directly onto the mounting surface. The universal wall adapter is attached on the top/bottom.

Battery unit

Energy storage - UPS-BAT/PB/24DC/1.2AH - 1274520



Energy storage, VRLA-AGM, 24 V DC, 1.2 Ah, automatic detection and communication with QUINT UPS-IQ

Energy storage - UPS-BAT/PB/24DC/4AH - 1274117



Energy storage, VRLA-AGM, 24 V DC, 4 Ah, automatic detection and communication with QUINT UPS-IQ

Energy storage - UPS-BAT/PB/24DC/7AH - 1274118



Energy storage, VRLA-AGM, 24 V DC, 7 Ah, automatic detection and communication with QUINT UPS-IQ

Energy storage - UPS-BAT/PB/24DC/12AH - 1274119



Energy storage, VRLA-AGM, 24 V DC, 12 Ah, automatic detection and communication with QUINT UPS-IQ

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Accessories

Energy storage - UPS-BAT/VRLA/24DC/20AH - 1109004



Energy storage, lead AGM, VRLA technology, 24 V DC, 20 Ah, automatic detection and communication with QUINT UPS-IQ

Energy storage - UPS-BAT/LI-ION/24DC/924WH - 2908232



Energy storage device, LI-ION technology, 24 V DC, 924 Wh, for ambient temperatures of -25 °C ... 60 °C, automatic detection and communication with QUINT UPS-IQ

Energy storage - UPS-BAT/VRLA/24DC/1.3AH - 2320296



Energy storage device, lead AGM, VRLA technology, 24 V DC, 1.3 Ah, tool-free battery replacement, automatic detection, and communication with QUINT UPS-IQ

Energy storage - UPS-BAT/VRLA/24DC/3.4AH - 2320306



Energy storage device, lead AGM, VRLA technology, 24 V DC, 3.4 Ah, tool-free battery replacement, automatic detection, and communication with QUINT UPS-IQ

Energy storage - UPS-BAT/VRLA/24DC/7.2AH - 2320319



Energy storage device, lead AGM, VRLA technology, 24 V DC, 7.2 Ah, tool-free battery replacement, automatic detection, and communication with QUINT UPS-IQ

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Accessories

Energy storage - UPS-BAT/VRLA/24DC/12AH - 2320322



Energy storage device, lead AGM, VRLA technology, 24 V DC, 12 Ah, tool-free battery replacement, automatic detection, and communication with QUINT UPS-IQ

Energy storage - UPS-BAT/VRLA/24DC/38AH - 2320335



Energy storage device, lead AGM, VRLA technology, 24 V DC, 38 Ah, automatic detection, and communication with QUINT UPS-IQ

Energy storage - UPS-BAT/VRLA-WTR/24DC/13AH - 2320416



Energy storage device, lead AGM, VRLA technology, 24 V DC, 13 Ah, tool-free battery replacement, automatic detection, and communication with QUINT UPS-IQ

Energy storage - UPS-BAT/VRLA-WTR/24DC/26AH - 2320429



Energy storage device, lead AGM, VRLA technology, 24 V DC, 26 Ah, tool-free battery replacement, automatic detection, and communication with QUINT UPS-IQ

Energy storage - UPS-BAT/LI-ION/24DC/120WH - 2320351



Energy storage device, LI-ION technology, 24 V DC, 120 Wh, for ambient temperatures of -20°C ... 60°C, automatic detection and communication with QUINT UPS-IQ

Uninterruptible power supply - QUINT-UPS/ 24DC/ 24DC/10 - 2320225

Accessories

Energy storage - UPS-CAP/24DC/10A/10KJ - 2320377



Maintenance-free energy storage based on double-layer capacitor, 24 V DC, 10 kJ, automatic detection and communication with QUINT UPS-IQ

Energy storage - UPS-CAP/24DC/20A/20KJ - 2320380



Maintenance-free energy storage based on double-layer capacitor, 24 V DC, 20 kJ, automatic detection and communication with QUINT UPS-IQ

Data cable preassembled

Data cable - IFS-RS232-DATACABLE - 2320490



Data cable for communication between devices with a D-SUB 9 RS-232 connection and Phoenix Contact devices with the 12-pos. IFS data port such as QUINT UPS-IQ or TRIO UPS.

Data cable - IFS-USB-DATACABLE - 2320500



Used for communicating between industrial PCs and Phoenix Contact devices with the 12-pos. IFS data port, such as QUINT UPS or TRIO UPS.

Memory block

Memory block - IFS-CONFSTICK - 2986122



Multi-functional memory block for the INTERFACE systemf for easy storage and backup of the configuration.

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Accessories

Memory block - IFS-CONFSTICK-L - 2901103



Multi-functional memory block with handle for the INTERFACE system; for easy storage and back up of the configuration.