

QUINT4-UPS/24DC/24DC/5/EC - Uninterruptible power supply



2906996

<https://www.phoenixcontact.com/us/products/2906996>

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 documentation. Our general terms of use for downloads are valid.



QUINT DC UPS, IQ Technology, EtherCAT®, DIN rail mounting, Screw connection, input: 24 V DC, output: 24 V DC / 5 A, charging current: 1.5 A

Product description

The intelligent QUINT UPS for integration into established industrial networks: your systems continue to be supplied with uninterrupted power, even in the event of a mains failure. The battery management system with IQ Technology and a powerful battery charger ensures superior system availability.

Your advantages

- Easy integration into networks using PROFINET, EtherNet/IP, EtherCAT® and USB interfaces
- Evaluation of state of health (SOH) and state of charge (SOC), thanks to the intelligent battery management system (BMS)
- Automatic recognition of the battery capacities and technologies (VRLA-WTR, LI-ION)
- Monitoring of output current and voltage, as well as manual connection and disconnection of the system
- SFB Technology selectively trips standard miniature circuit breakers. Loads connected in parallel continue working.

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 2906996 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | CM21 |
| Product key | CMUI43 |
| GTIN | 4055626171210 |
| Weight per piece (including packing) | 551 g |
| Weight per piece (excluding packing) | 456 g |
| Customs tariff number | 85371091 |
| Country of origin | CN |

QUINT4-UPS/24DC/24DC/5/EC - Uninterruptible power supply



2906996

<https://www.phoenixcontact.com/us/products/2906996>

Technical data

Notes

| | |
|---------|---|
| General | EtherCAT® is a registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany. |
|---------|---|

Input data

| | |
|---|---|
| Input voltage | 24 V DC |
| Input voltage range | 18 V DC ... 30 V DC 18 V DC ... 32 V DC |
| Electric strength, max. | 35 V DC (Protected against polarity reversal) |
| Internal input fuse | no |
| Voltage type of supply voltage | DC |
| Inrush current | ≤ 7 A (≤ 4 ms) |
| Reverse polarity protection | yes |
| Fixed backup threshold | 22 V DC |
| Dynamic activation threshold | > 1 V / 100 ms |
| Switch-on time | max. 3 s |
| Switch-on time during battery operation (Bat.-Start) | 8 s |
| Voltage drop, input/output | 0.3 V DC |
| Current consumption I_N ($U_N, I_{OUT} = I_N, I_{charge} = 0$) | 5.1 A |
| Current consumption I_{max} ($U_N, I_{OUT} = I_{Stat.Boost}, I_{charge} = max$) | 8.3 A |
| Current consumption $I_{No-Load}$ ($U_N, I_{OUT} = 0, I_{charge} = 0$) | 105 mA |
| Current consumption I_{charge} ($U_N, I_{OUT} = 0, I_{charge} = max$) | 1.9 A |
| Power consumption P_N ($U_N, I_{OUT} = I_N, I_{charge} = 0$) | 123 W |
| Power consumption P_{max} ($U_N, I_{OUT} = I_{Stat.Boost}, I_{charge} = max$) | 213 W |
| Power consumption $P_{No-Load}$ ($U_N, I_{OUT} = 0, I_{charge} = 0$) | 2.5 W |
| Power consumption P_{charge} ($U_N, I_{OUT} = 0, I_{charge} = max$) | 44 W |

Output data

| | |
|--|---|
| Efficiency | typ. 97 % |
| Number of outputs | 1 |
| Short-circuit-proof | yes |
| No-load proof | yes |
| Switch-over time | 0 ms |
| UPS connection in parallel | yes, with decoupling modules (to increase the buffer time and for redundancy) |
| UPS connection in series | no |
| Energy storage device connection in parallel | Yes, 5 (observe line protection) |
| Energy storage device connection in series | no |

Mains operation

| | |
|----------------------|--|
| Output voltage | 24 V DC ($U_{OUT} = U_{IN} - 0.3$ V DC) |
| Output voltage range | 18 V DC ... 30 V DC ($U_{Out} = U_{In} - 0.3$ V DC) |

QUINT4-UPS/24DC/24DC/5/EC - Uninterruptible power supply



2906996

<https://www.phoenixcontact.com/us/products/2906996>

| | |
|---|---------------------|
| | 18 V DC ... 32 V DC |
| 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) |
| Output power P_{OUT} ($U_N, I_{OUT} = I_N$) | 120 W |
| Output power P_{OUT} ($U_N, I_{OUT} = I_{stat.Boost}$) | 155 W |
| Output power P_{OUT} ($U_N, I_{OUT} = I_{dyn.Boost}$) | 240 W (5 s) |
| Power dissipation No load ($U_N, I_{Out} = 0, I_{Charge} = 0$) | 3 W |
| Power dissipation Nominal load ($U_N, I_{Out} = I_N, I_{Charge} = 0$) | 4 W |

Battery operation

| | |
|--|---|
| Output voltage | 24 V DC ($U_{OUT} = U_{BAT} - 0.3$ V DC) |
| Output voltage range | 19 V DC ... 32 V DC ($U_{OUT} = U_{BAT} - 0.3$ V DC) |
| Output current I_N | 5 A |
| Static Boost ($I_{Stat.Boost}$) | 6.25 A |
| Selective Fuse Breaking (I_{SFB}) | 30 A (15 ms) |
| Output power P_{OUT} ($U_N, I_{OUT} = I_N$) | 120 W |
| Output power P_{OUT} ($U_N, I_{OUT} = I_{stat.Boost}$) | 150 W |
| Output power P_{OUT} ($U_N, I_{OUT} = I_{dyn.Boost}$) | 240 W (5 s) |

Energy storage

| | |
|---|------------------------|
| End-of-charge voltage | 32 V DC |
| End-of-charge voltage (temperature-compensated) | 25 V DC ... 32 V DC |
| Charging current (configurable) | max. 1.5 A |
| Nominal capacity (without additional charger) | 0.8 Ah ... 30 Ah |
| Max. capacity | 40 Ah |
| Charging time | 2.5 h (3.4 Ah) |
| Buffer time | 25 min (3.4 Ah) |
| Deep discharge protection (configurable) | 19.2 V DC |
| Battery technology | VRLA, VRLA-WTR, LI-ION |
| Charge characteristic curve | IU_0U |
| IQ-Technology | yes |
| Temperature sensor | yes |
| Temperature compensation (configurable) | 42 mV/K |

Connection data

Input

| | |
|----------|-----|
| Position | 1.x |
|----------|-----|

Conductor connection

| | |
|--|---|
| Connection method | Screw connection |
| rigid | 0.2 mm ² ... 2.5 mm ² |
| flexible | 0.2 mm ² ... 2 mm ² |
| flexible with ferrule without plastic sleeve | 0.2 mm ² ... 2.5 mm ² |

QUINT4-UPS/24DC/24DC/5/EC - Uninterruptible power supply



2906996

<https://www.phoenixcontact.com/us/products/2906996>

| | |
|---|---|
| flexible with ferrule with plastic sleeve | 0.2 mm ² ... 2.5 mm ² |
| Stripping length | 6.5 mm (rigid/flexible) |
| Tightening torque | 0.5 Nm ... 0.6 Nm |
| Drive form screw head | Slotted L |

Output

| | |
|----------|-----|
| Position | 2.x |
|----------|-----|

Conductor connection

| | |
|--|---|
| Connection method | Screw connection |
| rigid | 0.2 mm ² ... 2.5 mm ² |
| flexible | 0.2 mm ² ... 2.5 mm ² |
| flexible with ferrule without plastic sleeve | 0.2 mm ² ... 2.5 mm ² |
| flexible with ferrule with plastic sleeve | 0.2 mm ² ... 2.5 mm ² |
| rigid (AWG) | 30 ... 12 (Cu) |
| Stripping length | 6.5 mm (rigid/flexible) |
| Tightening torque | 0.5 Nm ... 0.6 Nm |
| Drive form screw head | Slotted L |

Signal

| | |
|----------|-----|
| Position | 3.x |
|----------|-----|


Conductor connection

| | |
|--|--|
| Connection method | Push-in connection |
| rigid | 0.2 mm ² ... 1 mm ² |
| flexible | 0.2 mm ² ... 1 mm ² |
| flexible with ferrule without plastic sleeve | 0.2 mm ² ... 0.75 mm ² (Cu) 0.5 mm ² (recommended) |
| flexible with ferrule with plastic sleeve | 0.2 mm ² ... 0.75 mm ² |
| rigid (AWG) | 24 ... 16 (Cu) |
| Stripping length | 8 mm (rigid/flexible) |

Battery

| | |
|----------|-----|
| Position | 4.x |
|----------|-----|

Connection technology

| | |
|------------------|--|
| Position marking | 4.1 (+), 4.2 (-), 4.3 (⏏   |
|------------------|--|

Conductor connection

| | |
|--|---|
| Connection method | Screw connection |
| rigid | 0.2 mm ² ... 2.5 mm ² |
| flexible | 0.2 mm ² ... 2.5 mm ² |
| flexible with ferrule without plastic sleeve | 0.2 mm ² ... 2.5 mm ² |
| flexible with ferrule with plastic sleeve | 0.2 mm ² ... 2.5 mm ² |
| rigid (AWG) | 30 ... 12 (Cu) |
| Stripping length | 6.5 mm (rigid/flexible) |
| Tightening torque | 0.5 Nm ... 0.6 Nm |

QUINT4-UPS/24DC/24DC/5/EC - Uninterruptible power supply



2906996

<https://www.phoenixcontact.com/us/products/2906996>

| | |
|-----------------------|-----------|
| Drive form screw head | Slotted L |
|-----------------------|-----------|

Interfaces

| | |
|----------------------|-----------------------|
| Interface | EtherCAT® |
| Number of interfaces | 2 |
| Connection method | RJ45 |
| Supported protocols | CoE |
| Locking | Locking clip |
| Transmission physics | Twisted-Pair |
| Features | Autonegotiation |
| | Autocrossing |
| | Half- or full-duplex |
| | automatic recognition |
| Topology | Ring |
| | Line |
| Transmission speed | 100 Mbps |
| Transmission length | max. 100 m |
| Cycle time | < 100 µs |
| Access time | ≤ 2 s |
| Chipset | Renesas R-IN32M3 |
| Electrical isolation | yes |
| Device ID | 2C5B74 _{hex} |
| Vendor ID | 84 _{hex} |

Signaling

LED signaling

| | |
|--------------------|--------------------|
| Types of signaling | DC OK (green) |
| | Alarm (red) |
| | Bat.-Mode (yellow) |
| | SOC (red, green) |
| | Data (red, green) |

Product properties

| | |
|------------------------------------|---------------------------|
| Product type | DC UPS |
| Product family | QUINT DC UPS |
| MTBF (IEC 61709, SN 29500) | > 1189000 h (25 °C) |
| | > 736900 h (40 °C) |
| | > 372700 h (60 °C) |
| Environmental protection directive | RoHS Directive 2011/65/EU |
| | WEEE |
| | Reach |

Insulation characteristics

| | |
|------------------|------------------|
| Protection class | III (without PE) |
|------------------|------------------|

QUINT4-UPS/24DC/24DC/5/EC - Uninterruptible power supply



2906996

<https://www.phoenixcontact.com/us/products/2906996>

| | |
|--|---------------------|
| Overvoltage category (EN 61010-1) | II (≤ 4000 m) |
| Overvoltage category (IEC 61010-2-201) | II (≤ 4000 m) |
| Degree of pollution | 2 |

Life expectancy (electrolytic capacitors)

| | |
|------|----------|
| Time | 224011 h |
|------|----------|

Dimensions

Item dimensions

| | |
|--|---|
| Width | 35 mm |
| Height | 130 mm |
| Depth | 125 mm |
| Depth (Device depth (DIN rail mounting)) | 125 mm (Device depth (DIN rail mounting)) |

Item dimensions with alternative mounting

| | |
|--------|--------|
| Width | 123 mm |
| Height | 130 mm |
| Depth | 37 mm |

Installation dimensions

| | |
|--|---------------------------------------|
| Installation distance right/left (active) | 5 mm / 5 mm ($P_{Out} \geq 50\%$) |
| Installation distance right/left (passive) | 0 mm / 0 mm ($P_{Out} \geq 50\%$) |
| Installation distance right/left (active, passive) | 0 mm / 0 mm ($P_{Out} \leq 50\%$) |
| Installation distance top/bottom (active) | 50 mm / 50 mm ($P_{Out} \geq 50\%$) |
| Installation distance top/bottom (passive) | 40 mm / 20 mm ($P_{Out} \geq 50\%$) |
| Installation distance top/bottom (active, passive) | 40 mm / 20 mm ($P_{Out} \leq 50\%$) |

Mounting

| | |
|-------------------|--|
| Mounting type | DIN rail mounting |
| Mounting position | On horizontal DIN rail NS 35/7.5 and NS 35/15 acc. to EN 60715 |

Material specifications

| | |
|--|------------------------|
| Flammability rating according to UL 94 (housing / terminal blocks) | V0 |
| Housing material | Metal |
| Hood version | Stainless steel X6Cr17 |
| Side element version | Aluminum AlMg3 |

Environmental and real-life conditions

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 |
| Ambient temperature (start-up type tested) | -40 °C |
| Maximum altitude | ≤ 4000 m |

QUINT4-UPS/24DC/24DC/5/EC - Uninterruptible power supply



2906996

<https://www.phoenixcontact.com/us/products/2906996>

| | |
|--|---|
| Climatic class | 3K3 (EN 60721) |
| Max. permissible relative humidity (operation) | ≤ 95 % (at 25 °C, non-condensing) |
| Shock | 18 ms, 30g, in each space direction (according to IEC 60068-2-27) |
| Vibration (operation) | 2.3g |

Standards and regulations

Protective extra-low voltage

| | |
|--------------------------|------------------------------|
| Standard designation | Protective extra-low voltage |
| Standards/specifications | IEC 61010-1 (SELV) |
| | IEC 61010-2-201 (PELV) |

Approvals

UL

| | |
|----------------|---------------------------|
| Identification | UL/C-UL Listed UL 61010-1 |
|----------------|---------------------------|

UL

| | |
|----------------|-------------------------------|
| Identification | UL/C-UL Listed UL 61010-2-201 |
|----------------|-------------------------------|

UL

| | |
|----------------|---|
| Identification | UL/C-UL Listed ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D T4 (Hazardous Location) |
|----------------|---|

CSA

| | |
|----------------|------------------------------|
| Identification | CAN/CSA-C22.2 No. 61010-1-12 |
|----------------|------------------------------|

CSA

| | |
|----------------|-------------------------|
| Identification | CAN/CSA-IEC 61010-2-201 |
|----------------|-------------------------|

CSA

| | |
|----------------|--|
| Identification | CAN/CSA-C22.2 No. 213 Class I, Division 2, Groups A, B, C, D T4 (Hazardous Location) |
|----------------|--|

CB scheme

| | |
|----------------|-------------|
| Identification | IEC 61010-1 |
|----------------|-------------|

CB scheme

| | |
|----------------|-----------------|
| Identification | IEC 61010-2-201 |
|----------------|-----------------|

DNV

| | |
|----------------|--|
| Identification | Class Guideline DNVGL-CG-0339 |
| Note | Location classes: Temperature D (see Application/Limitation), Humidity B, Vibration A/C, EMC B |

EMC data

| | |
|-------------------------------------|---|
| Electromagnetic compatibility | Conformance with EMC Directive 2014/30/EU |
| Low Voltage Directive | Conformance with Low Voltage Directive 2014/35/EC |
| EMC requirements for noise emission | EN 61000-6-3 |

QUINT4-UPS/24DC/24DC/5/EC - Uninterruptible power supply



2906996

<https://www.phoenixcontact.com/us/products/2906996>

| | |
|-------------------------------------|--|
| | EN 61000-6-4 |
| EMC requirements for noise immunity | EN 61000-6-1 |
| | EN 61000-6-2 |
| Noise immunity | Immunity in accordance with EN 61000-6-1 (residential), EN 61000-6-2 (industrial), and EN 61000-6-5 (switching devices), IEC/EN 61850-3 (power supply) |

Noise emission

| | |
|-----------------------|---|
| Standards/regulations | Additional basic standard EN 61000-6-5 (immunity in switching devices), IEC/EN 61850-3 (power supply) |
|-----------------------|---|

Electrostatic discharge

| | |
|-----------------------|--------------|
| Standards/regulations | EN 61000-4-2 |
|-----------------------|--------------|

Electrostatic discharge

| | |
|-------------------|----------------------|
| Contact discharge | 8 kV (Test Level 4) |
| Discharge in air | 15 kV (Test Level 4) |
| Comments | Criterion B |

Electromagnetic HF field

| | |
|-----------------------|--------------|
| Standards/regulations | EN 61000-4-3 |
|-----------------------|--------------|

Electromagnetic HF field

| | |
|---------------------|-----------------------|
| Frequency range | 80 MHz ... 1 GHz |
| Test field strength | 20 V/m (Test Level 3) |
| Frequency range | 1 GHz ... 6 GHz |
| Test field strength | 10 V/m (Test Level 3) |
| Frequency range | 1 GHz ... 6 GHz |
| Test field strength | 10 V/m (Test Level 3) |
| Comments | Criterion A |

Fast transients (burst)

| | |
|-----------------------|--------------|
| Standards/regulations | EN 61000-4-4 |
|-----------------------|--------------|

Fast transients (burst)

| | |
|----------|------------------------------------|
| Input | 4 kV (Test Level 4 - asymmetrical) |
| Output | 4 kV (Test Level 4 - asymmetrical) |
| Signal | 4 kV (Test Level 4 - asymmetrical) |
| Comments | Criterion B |

Surge voltage load (surge)

| | |
|-----------------------|--------------|
| Standards/regulations | EN 61000-4-5 |
|-----------------------|--------------|

Surge voltage load (surge)

| | |
|--------|------------------------------------|
| Input | 1 kV (Test Level 3 - symmetrical) |
| | 2 kV (Test Level 3 - asymmetrical) |
| Output | 1 kV (Test Level 3 - symmetrical) |
| | 2 kV (Test Level 3 - asymmetrical) |
| Signal | 1 kV (Test Level 2 - asymmetrical) |

QUINT4-UPS/24DC/24DC/5/EC - Uninterruptible power supply



2906996

<https://www.phoenixcontact.com/us/products/2906996>

| | |
|----------|-------------|
| Comments | Criterion B |
|----------|-------------|

Conducted interference

| | |
|-----------------------|--------------|
| Standards/regulations | EN 61000-4-6 |
|-----------------------|--------------|

Conducted interference

| | |
|---------------------|---------------------|
| Input/output/signal | asymmetrical |
| Frequency range | 0.15 MHz ... 80 MHz |
| Comments | Criterion A |
| Voltage | 10 V (Test Level 3) |

Power frequency magnetic field

| | |
|-----------------------|-----------------|
| Standards/regulations | EN 61000-4-8 |
| Frequency | 16.67 Hz |
| | 50 Hz |
| | 60 Hz |
| Test field strength | 100 A/m |
| Additional text | 60 s |
| Comments | Criterion A |
| Frequency | 50 Hz |
| | 60 Hz |
| Frequency range | 50 Hz ... 60 Hz |
| Test field strength | 1 kA/m |
| Additional text | 3 s |
| Frequency | 0 Hz |
| Test field strength | 300 A/m |
| Additional text | DC, 60 s |

Criteria

| | |
|-------------|--|
| Criterion A | Normal operating behavior within the specified limits. |
| Criterion B | Temporary impairment to operational behavior that is corrected by the device itself. |

QUINT4-UPS/24DC/24DC/5/EC - Uninterruptible power supply



2906996

<https://www.phoenixcontact.com/us/products/2906996>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2906996>



EAC

Approval ID: RU S-DE.BL08.W.00764



UL Listed

Approval ID: E123528



cUL Listed

Approval ID: E123528



EAC

Approval ID: RU-DE.B.00184/20

DNV

Approval ID: TAA00001YD



KC

Approval ID: R-R-PCK-2907066



LR

Approval ID: LR21417906TA-01

ClassNK

NK

Approval ID: TA22372M



BV

Approval ID: 69394/A1 BV



RINA

Approval ID: ELE382621XG

ABS

Approval ID: 23-2416092-PDA

QUINT4-UPS/24DC/24DC/5/EC - Uninterruptible power supply



2906996

<https://www.phoenixcontact.com/us/products/2906996>



IECEE CB Scheme

Approval ID: DK-68191-M1-UL



cUL Listed

Approval ID: E199827



UL Listed

Approval ID: E199827

QUINT4-UPS/24DC/24DC/5/EC - Uninterruptible power supply



2906996

<https://www.phoenixcontact.com/us/products/2906996>

Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27040705 |
| ECLASS-15.0 | 27040705 |

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC000382 |
|-----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121000 |
|-------------|----------|

QUINT4-UPS/24DC/24DC/5/EC - Uninterruptible power supply



2906996

<https://www.phoenixcontact.com/us/products/2906996>

Environmental product compliance

EU RoHS

| | |
|---|--------------|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 7(a), 7(c)-I |

China RoHS

| | |
|--|---|
| Environment friendly use period (EFUP) | EFUP-25 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

EU REACH SVHC

| | |
|-------------------------------------|--------------------------------------|
| REACH candidate substance (CAS No.) | Diboron trioxide(CAS: 1303-86-2) |
| | Lead(CAS: 7439-92-1) |
| SCIP | 84ba1692-2b2c-402e-b7df-007f1a483953 |

EF3.1 Climate Change

| | |
|---------|---------------|
| CO2e kg | 30.01 kg CO2e |
|---------|---------------|

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com