

# QUINT4-UPS/24DC/24DC/10 - Uninterruptible power supply



2907066

<https://www.phoenixcontact.com/us/products/2907066>

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QUINT UPS, IQ Technology, DIN rail mounting, Screw connection, input: 24 V DC, output: 24 V DC / 10 A, charging current: 3 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                          | 2907066       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | CM21          |
| Product key                          | CMUI43        |
| GTIN                                 | 4055626171203 |
| Weight per piece (including packing) | 510.8 g       |
| Weight per piece (excluding packing) | 436.79 g      |
| Customs tariff number                | 85371091      |
| Country of origin                    | CN            |

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## Technical data

### Input data

|                                                                                           |                                               |
|-------------------------------------------------------------------------------------------|-----------------------------------------------|
| Input voltage                                                                             | 24 V DC                                       |
| Input voltage range                                                                       | 18 V DC ... 30 V DC                           |
| Electric strength, max.                                                                   | 35 V DC (Protected against polarity reversal) |
| Internal input fuse                                                                       | no                                            |
| Typical national grid voltage                                                             | 24 V DC                                       |
| Voltage type of supply voltage                                                            | DC                                            |
| Inrush current                                                                            | $\leq 7 \text{ A}$ ( $\leq 4 \text{ ms}$ )    |
| Reverse polarity protection                                                               | yes                                           |
| Fixed backup threshold                                                                    | 22 V DC                                       |
|                                                                                           | 30 V DC                                       |
| Dynamic activation threshold                                                              | $> 1 \text{ V} / 100 \text{ ms}$              |
| Switch-on time                                                                            | max. 3 s                                      |
| Switch-on time during battery operation (Bat.-Start)                                      | 8 s                                           |
| Voltage drop, input/output                                                                | 0.4 V DC                                      |
| Current consumption $I_N$ ( $U_N$ , $I_{OUT} = I_N$ , $I_{charge} = 0$ )                  | 10.1 A                                        |
| Current consumption $I_{max}$ ( $U_N$ , $I_{OUT} = I_{Stat.Boost}$ , $I_{charge} = max$ ) | 16.2 A                                        |
| Current consumption $I_{No-Load}$ ( $U_N$ , $I_{OUT} = 0$ , $I_{charge} = 0$ )            | 48 mA                                         |
| Current consumption $I_{charge}$ ( $U_N$ , $I_{OUT} = 0$ , $I_{charge} = max$ )           | 3.5 A                                         |
| Power consumption $P_N$ ( $U_N$ , $I_{OUT} = I_N$ , $I_{charge} = 0$ )                    | 241 W                                         |
| Power consumption $P_{max}$ ( $U_N$ , $I_{OUT} = I_{Stat.Boost}$ , $I_{charge} = max$ )   | 384 W                                         |
| Power consumption $P_{No-Load}$ ( $U_N$ , $I_{OUT} = 0$ , $I_{charge} = 0$ )              | 1.2 W                                         |
| Power consumption $P_{charge}$ ( $U_N$ , $I_{OUT} = 0$ , $I_{charge} = max$ )             | 90 W                                          |

### Output data

|                                              |                                                                               |
|----------------------------------------------|-------------------------------------------------------------------------------|
| Efficiency                                   | typ. 98 %                                                                     |
| 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 ( $U_{OUT} = U_{IN} - 0.4 \text{ V DC}$ )             |
| Output voltage range              | 18 V DC ... 30 V DC ( $U_{OUT} = U_{IN} - 0.4 \text{ V DC}$ ) |
|                                   | 18 V DC ... 32 V DC                                           |
| Output current $I_N$              | 10 A                                                          |
| Static Boost ( $I_{Stat.Boost}$ ) | 12.5 A                                                        |

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|                                                                                                               |              |
|---------------------------------------------------------------------------------------------------------------|--------------|
| Dynamic Boost ( $I_{\text{Dyn.Boost}}$ )                                                                      | 20 A (5 s)   |
| Selective Fuse Breaking ( $I_{\text{SFB}}$ )                                                                  | 60 A (15 ms) |
| Output power $P_{\text{OUT}}$ ( $U_{\text{N}}$ , $I_{\text{OUT}} = I_{\text{N}}$ )                            | 240 W        |
| Output power $P_{\text{OUT}}$ ( $U_{\text{N}}$ , $I_{\text{OUT}} = I_{\text{stat.Boost}}$ )                   | 300 W        |
| Output power $P_{\text{OUT}}$ ( $U_{\text{N}}$ , $I_{\text{OUT}} = I_{\text{dyn.Boost}}$ )                    | 480 W (5 s)  |
| Power dissipation No load ( $U_{\text{N}}$ , $I_{\text{Out}} = 0$ , $I_{\text{Charge}} = 0$ )                 | 3 W          |
| Power dissipation Nominal load ( $U_{\text{N}}$ , $I_{\text{Out}} = I_{\text{N}}$ , $I_{\text{Charge}} = 0$ ) | 8 W          |

## Battery operation

|                                                                                                               |                                                                              |
|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Output voltage                                                                                                | 24 V DC ( $U_{\text{OUT}} = U_{\text{BAT}} - 0.4 \text{ V DC}$ )             |
| Output voltage range                                                                                          | 19 V DC ... 28 V DC ( $U_{\text{OUT}} = U_{\text{BAT}} - 0.4 \text{ V DC}$ ) |
| Output current $I_{\text{N}}$                                                                                 | 10 A                                                                         |
| Static Boost ( $I_{\text{Stat.Boost}}$ )                                                                      | 12.5 A                                                                       |
| Selective Fuse Breaking ( $I_{\text{SFB}}$ )                                                                  | 60 A (15 ms)                                                                 |
| Output power $P_{\text{OUT}}$ ( $U_{\text{N}}$ , $I_{\text{OUT}} = I_{\text{N}}$ )                            | 240 W                                                                        |
| Output power $P_{\text{OUT}}$ ( $U_{\text{N}}$ , $I_{\text{OUT}} = I_{\text{stat.Boost}}$ )                   | 300 W                                                                        |
| Output power $P_{\text{OUT}}$ ( $U_{\text{N}}$ , $I_{\text{OUT}} = I_{\text{dyn.Boost}}$ )                    | 480 W (5 s)                                                                  |
| Power dissipation No load ( $U_{\text{N}}$ , $I_{\text{Out}} = 0$ , $I_{\text{Charge}} = 0$ )                 | 2 W                                                                          |
| Power dissipation Nominal load ( $U_{\text{N}}$ , $I_{\text{Out}} = I_{\text{N}}$ , $I_{\text{Charge}} = 0$ ) | 8 W                                                                          |

## Energy storage

|                                                 |                        |
|-------------------------------------------------|------------------------|
| Nominal voltage $U_{\text{N}}$                  | 24 V DC                |
| End-of-charge voltage (temperature-compensated) | 25 V DC ... 32 V DC    |
| End-of-charge voltage (configurable)            | 27.6 V DC              |
| Charging current (configurable)                 | max. 3 A               |
| Nominal capacity (without additional charger)   | 1.2 Ah ... 80 Ah       |
| Max. capacity                                   | 80 Ah                  |
| Charging time                                   | 160 min (7.2 Ah)       |
| Buffer time                                     | 25 min (7.2 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 <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| flexible                                     | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| flexible with ferrule without plastic sleeve | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |

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|                                           |                         |
|-------------------------------------------|-------------------------|
| flexible with ferrule with plastic sleeve | 0.2 mm² ... 2.5 mm²     |
| 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               |

## Output

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

## Conductor connection

|                                              |                         |
|----------------------------------------------|-------------------------|
| Connection method                            | Screw connection        |
| rigid                                        | 0.2 mm² ... 2.5 mm²     |
| flexible                                     | 0.2 mm² ... 2.5 mm²     |
| flexible with ferrule without plastic sleeve | 0.2 mm² ... 2.5 mm²     |
| flexible with ferrule with plastic sleeve    | 0.2 mm² ... 2.5 mm²     |
| 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 mm² ... 1 mm²                                  |
| flexible                                     | 0.2 mm² ... 1 mm²                                  |
| flexible with ferrule without plastic sleeve | 0.2 mm² ... 0.75 mm² (Cu)<br>0.5 mm² (recommended) |
| flexible with ferrule with plastic sleeve    | 0.2 mm² ... 0.75 mm²                               |
| 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 mm² ... 2.5 mm²     |
| flexible                                     | 0.2 mm² ... 2.5 mm²     |
| flexible with ferrule without plastic sleeve | 0.2 mm² ... 2.5 mm²     |
| flexible with ferrule with plastic sleeve    | 0.2 mm² ... 2.5 mm²     |
| rigid (AWG)                                  | 30 ... 12 (Cu)          |
| Stripping length                             | 6.5 mm (rigid/flexible) |

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|                       |                   |
|-----------------------|-------------------|
| Tightening torque     | 0.5 Nm ... 0.6 Nm |
| Drive form screw head | Slotted L         |

## Signaling

### LED signaling

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

### Signal state Alarm

|                                |                      |
|--------------------------------|----------------------|
| Connection labeling            | 3.2, 3.3             |
| Channel                        | DO (digital output)  |
| Switch contact (floating)      | OptoMOS              |
| State (configurable)           | Group alarm          |
| State condition (configurable) | Alarm threshold      |
| Switching voltage              | max. 30 V AC/DC      |
| State - signal assignment      | NC (Normally Closed) |
| Current carrying capacity      | max. 100 mA          |
| LED status indicator           | red (Alarm)          |

### Signal state Bat.-Mode

|                                |                                                                      |
|--------------------------------|----------------------------------------------------------------------|
| Connection labeling            | 3.4 (+)                                                              |
| Channel                        | DO (digital output)                                                  |
| Semiconductor output           | MOSFET                                                               |
| State (configurable)           | Bat.-Mode                                                            |
| State condition (configurable) | $U_{IN} < 18 \text{ V DC}$ , $U_{IN} > 30 \text{ V DC}$ , Bat.-Start |
| Output voltage                 | 19 V DC ... 28 V DC (buffered)                                       |
| Output can be loaded           | max. 20 mA                                                           |
| State - signal assignment      | active - high                                                        |
| Reference potential            | 3.9 (SGnd, identical to 1.2, 2.2, 4.2)                               |
| LED status indicator           | Yellow (Bat.-Mode)                                                   |

### Signal state Ready

|                                |                                        |
|--------------------------------|----------------------------------------|
| Connection labeling            | 3.5 (+)                                |
| Channel                        | DO (digital output)                    |
| Semiconductor output           | MOSFET                                 |
| State (configurable)           | Ready                                  |
| State condition (configurable) | SOC = 100 %                            |
| Output voltage                 | 19 V DC ... 28 V DC (buffered)         |
| Output can be loaded           | max. 20 mA                             |
| State - signal assignment      | active - high                          |
| Reference potential            | 3.9 (SGnd, identical to 1.2, 2.2, 4.2) |
| LED status indicator           | Green (state of charge - SOC)          |

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## Signal state Remote

|                           |                                                      |
|---------------------------|------------------------------------------------------|
| Connection labeling       | 3.6 (+)                                              |
| Channel                   | DI (digital input)                                   |
| State (configurable)      | Disconnection                                        |
| State condition           | Low level                                            |
| Low signal                | Input connected with SGnd (3.9) or $\leq 5$ V DC     |
| High signal               | Input not connected or connected with 13 ... 30 V DC |
| Signal - state assignment | low - active                                         |
| Reference potential       | 3.9 (SGnd, identical to 1.2, 2.2, 4.2)               |
| LED status indicator      | Green, flashing (DC OK)                              |

## Signal state PS Boost

|                           |                                                                 |
|---------------------------|-----------------------------------------------------------------|
| Connection labeling       | 3.7 (+)                                                         |
| Channel (configurable)    | DI (digital input) default, AI (analog input)                   |
| State (configurable)      | Charging current reduced                                        |
| State condition           | Low level                                                       |
| Low signal                | Input connected with SGnd (3.9), $\leq 5$ V DC or not connected |
| High signal               | Input connected with 13 ... 30 V DC                             |
| Signal - state assignment | low - active                                                    |
| Unit signal               | I (mA)                                                          |
| Resistance                | 390 $\Omega$                                                    |

## Signal state Bat.-Start

|                           |                                                         |
|---------------------------|---------------------------------------------------------|
| Connection labeling       | 3.8 (+)                                                 |
| Channel                   | DI (digital input)                                      |
| State condition           | Low level (30 ms)                                       |
| Low signal                | Input connected with SGnd (3.9) or <u>Bat</u>           |
| High signal               | Input not connected or connected with $>U_{\text{Bat}}$ |
| Signal - state assignment | low - active                                            |
| Reference potential       | 3.9 (SGnd, identical to 1.2, 2.2, 4.2)                  |
| LED status indicator      | Yellow (Bat.-Mode)                                      |

## Signal output 24V DC 20 mA, SGnd

|                      |                                        |
|----------------------|----------------------------------------|
| Connection labeling  | 3.1 (+), 3.9 (SGnd)                    |
| Output voltage       | 24 V DC                                |
| Output can be loaded | max. 20 mA                             |
| Reference potential  | 3.9 (SGnd, identical to 1.2, 2.2, 4.2) |

## Product properties

|                            |                     |
|----------------------------|---------------------|
| Product type               | DC UPS              |
| Product family             | QUINT UPS           |
| MTBF (IEC 61709, SN 29500) | > 2065000 h (25 °C) |
|                            | > 1184000 h (40 °C) |
|                            | > 522600 h (60 °C)  |
| RoHS Directive 2011/65/EU  |                     |

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|                                           |                  |
|-------------------------------------------|------------------|
| Environmental protection directive        | WEEE             |
|                                           | Reach            |
| Insulation characteristics                |                  |
| Protection class                          | III (without PE) |
| Degree of pollution                       | 2                |
| Life expectancy (electrolytic capacitors) |                  |
| Time                                      | 137895 h         |

## Dimensions

### Item dimensions

|                                          |                                           |
|------------------------------------------|-------------------------------------------|
| Width                                    | 35 mm                                     |
| Height                                   | 130 mm                                    |
| Depth                                    | 132 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                             |

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

### Overvoltage category

|                |               |
|----------------|---------------|
| EN 61010-1     | II (≤ 4000 m) |
| EN 61010-2-201 | II (≤ 4000 m) |

### Protective extra-low voltage

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

## Approvals

### UL approval

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

### UL approval

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

### UL approval

|                |                                                                                                 |
|----------------|-------------------------------------------------------------------------------------------------|
| 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     |
|                | 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 |

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## 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                                                                                                                                           |
|                                     | 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)

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|          |                                    |
|----------|------------------------------------|
| 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) |
| 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. |

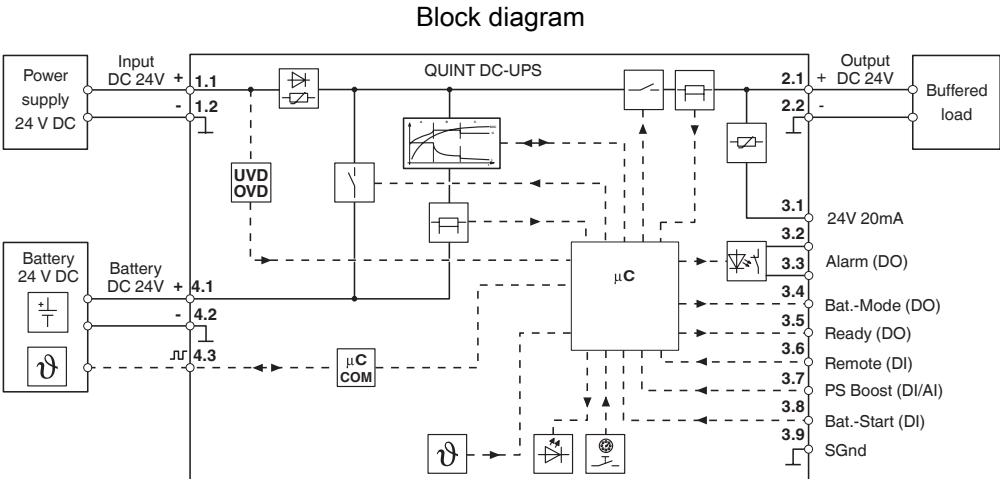
QUINT4-UPS/24DC/24DC/10 - Uninterruptible power supply



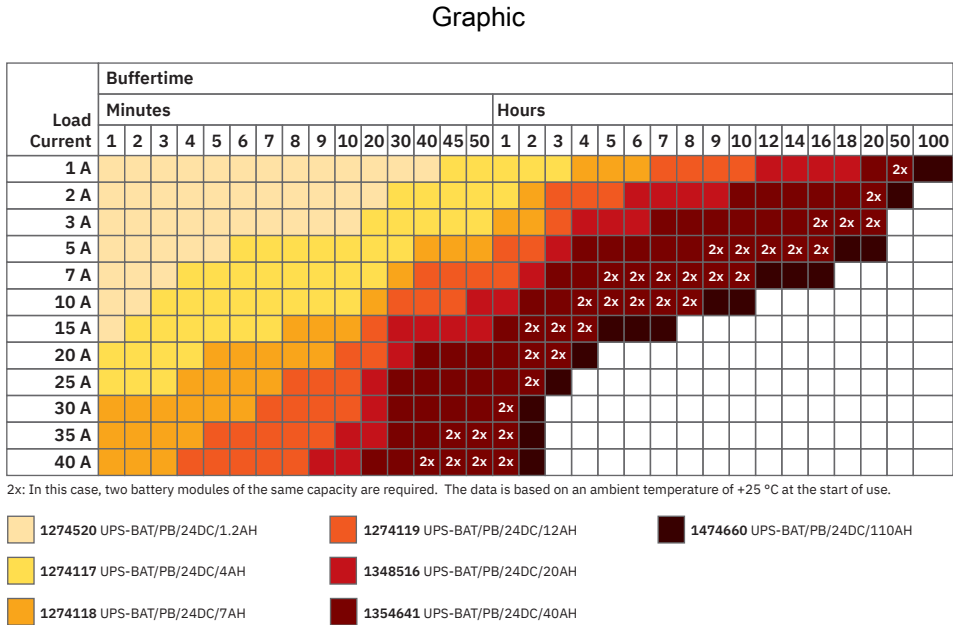
2907066

<https://www.phoenixcontact.com/us/products/2907066>

Drawings



Block diagram

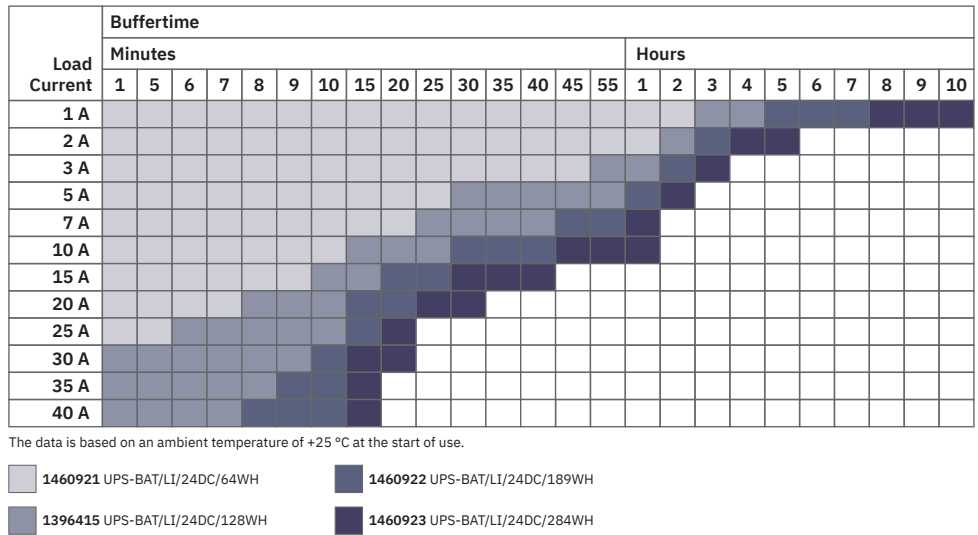


QUINT DC UPS buffer times for PB battery module

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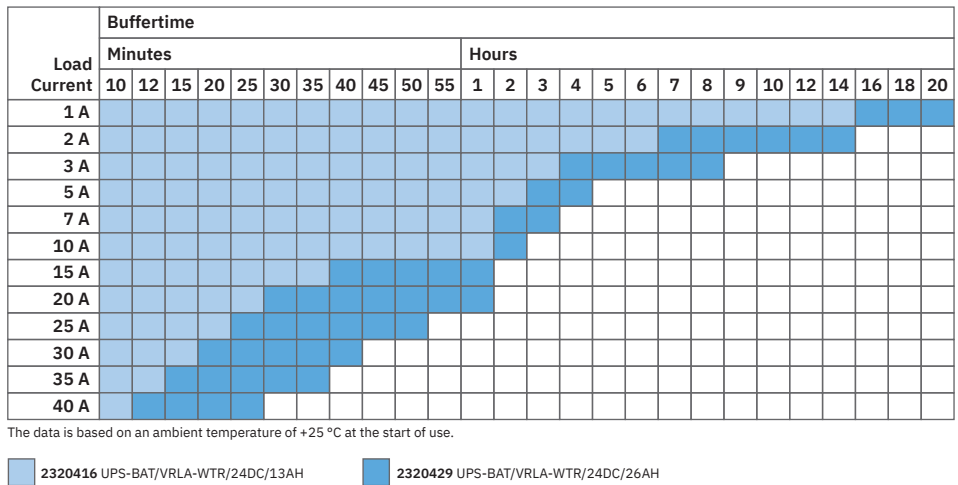
<https://www.phoenixcontact.com/us/products/2907066>

Graphic



QUINT DC UPS buffer times for LI battery module

Graphic



QUINT DC UPS buffer times and VRLA-WTR battery module

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2907066>



**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: TAA00002K4



**KC**

Approval ID: R-R-PCK-2907066



**LR**

Approval ID: LR21417906TA

**ClassNK**

**NK**

Approval ID: TA22372M



**BV**

Approval ID: 69394/A0 BV



**RINA**

Approval ID: ELE382621XG

**ABS**

Approval ID: 23-2416092-PDA

QUINT4-UPS/24DC/24DC/10 - Uninterruptible power supply



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**IECEE CB Scheme**  
Approval ID: DK-68191-M1-UL



**cUL Listed**  
Approval ID: E199827



**UL Listed**  
Approval ID: E199827

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Classifications

ECLASS

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

ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC000382 |
|----------|----------|

UNSPSC

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

# QUINT4-UPS/24DC/24DC/10 - Uninterruptible power supply



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## 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                                | fda3fd14-7b3d-4f53-a71c-9d95f86ae5b8 |

### EF3.0 Climate Change

|         |               |
|---------|---------------|
| CO2e kg | 17.42 kg CO2e |
|---------|---------------|

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