

QUINT-HP-UPS/120AC/2.5KVA/PT - Uninterruptible power supply



1136813

<https://www.phoenixcontact.com/gb/products/1136813>

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QUINT AC-USV, IQ Technology, Wall mounting, input: 120 V AC, output: 120 V AC / 2500 VA.



Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1136813 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | CMUW15 |
| Product key | CMUW15 |
| GTIN | 4063151073237 |
| Weight per piece (including packing) | 6,200 g |
| Weight per piece (excluding packing) | 5,700 g |
| Customs tariff number | 85371091 |
| Country of origin | DE |

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Technical data

Input data

| | |
|---|------------------------|
| Input voltage | 100 V AC -10 % / +20 % |
| | 110 V AC -10 % / +20 % |
| | 120 V AC -10 % / +15 % |
| | 130 V AC -15 % / +10 % |
| Voltage type of supply voltage | AC |
| Frequency range (f_N) | 47.5 Hz ... 52.5 Hz |
| Bypass fuse | 40 A T 250 V |
| Permissible backup fuse | 40 A (Listed breaker) |
| Current consumption | nom. 24 A (100 V AC) |
| | nom. 23.3 A (110 V AC) |
| | nom. 24 A (120 V AC) |
| | nom. 23.4 A (130 V AC) |
| | max. 34.4 A (100 V AC) |
| | max. 31.2 A (110 V AC) |
| | max. 35.4 A (120 V AC) |
| | max. 34.6 A (130 V AC) |
| | |
| Rated short-time current carrying capacity I_{cw} | 6 kA |

Output data

| | |
|---|--|
| Classification according to IEC 62040-3 | VFI-SS-111 |
| Efficiency | > 94 % (100% load, battery charged) |
| | > 90 % (100% load, battery charged) |
| Apparent power | 2500 VA |
| Real power | 2250 W |
| Power factor (cos phi) | 0.9 |
| Crest factor | 2.5 |
| Switch-over time | 0 ms |
| Connection in parallel | yes |
| | max. 3 |
| Connection in series | No |
| Overload capability Mains operation | 120 % ... 150 % (20 s / 5 s, then switch to bypass operation) |
| Overload capability Battery operation | 120 % ... 150 % (20 s / 5 s, then shutdown) |
| Overload capability Bypass mode | 120 % ... 150 % (for a sustained period / 20 s, then shutdown) |
| Rated short-time current carrying capacity I_{cw} | 6 kA |

Mains operation

| | |
|----------------|--------------------|
| Output voltage | 100 V AC \pm 2 % |
| | 110 V AC \pm 2 % |
| | 120 V AC \pm 2 % |

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| | |
|-----------------------------------|--|
| | 130 V AC $\pm 2\%$ |
| Form of output voltage | Pure sine |
| Output current | nom. 20 A (100 V AC) |
| | nom. 18.2 A (110 V AC) |
| | nom. 20.8 A (120 V AC) |
| | nom. 19.2 A (130 V AC) |
| Maximum no-load power dissipation | 9 W |
| Power loss nominal load max. | < 120 W (100% load, battery charged) |
| Nominal output frequency | 50 Hz |
| | 60 Hz |
| | $\pm 0.5\%$ (Output frequency tolerance) |
| Electronic current limitation | > 2 x Output: Current nom. (> 200 ms) |

Battery operation

| | |
|--|--|
| Maximum no-load power dissipation | 9 W |
| Power loss nominal load max. | 250 W (100% load, battery charged) |
| Nominal output frequency | 50 Hz |
| | 60 Hz |
| | $\pm 0.5\%$ (Output frequency tolerance) |
| Total harmonic distortion factor (THD) | < 3 % (linear load) |
| | < 8 % (non-linear load) |
| Electronic current limitation | > 2 x Output: Current nom. (> 200 ms) |

Energy storage

Input

| | |
|------------------------|-----------------|
| Input voltage | 48 V DC |
| | max. 60 V DC |
| Input current | max. 40 A |
| Nominal capacity range | 7 Ah ... 200 Ah |
| Charging current | max. 10 A |

Output

| | |
|-----------------------|------------------|
| Short-circuit current | 650 A (< 1,5 ms) |
|-----------------------|------------------|

General

| | |
|-------------------------|-----------------------------|
| Connection in parallel | yes |
| | max. 5 (per battery string) |
| Connection in series | No |
| IQ-Technology | yes |
| Permissible backup fuse | 40 A |
| Temperature sensor | yes |
| Permissible backup fuse | 40 A |

Connection data

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Input

| | |
|----------------|-------------------------------------|
| Position | 1.x |
| Identification | 1.1 (L), 1.2 (N), 1.3 (⊕ IEC 60959) |

Connection technology

| | |
|------------------|-------------------------------------|
| Position marking | 1.1 (L), 1.2 (N), 1.3 (⊕ IEC 60959) |
|------------------|-------------------------------------|

Conductor connection

| | |
|--|---|
| Connection method | Push-in connection |
| rigid | 4 mm ² ... 6 mm ² |
| flexible | 4 mm ² ... 6 mm ² |
| flexible with ferrule without plastic sleeve | 4 mm ² |
| flexible with ferrule with plastic sleeve | 4 mm ² |
| rigid (AWG) | 10 |
| Stripping length | 10 mm |

Output

| | |
|----------------|-------------------------------------|
| Position | 2.x |
| Identification | 2.1 (L), 2.2 (N), 2.3 (⊕ IEC 60959) |

Connection technology

| | |
|------------------|-------------------------------------|
| Position marking | 2.1 (L), 2.2 (N), 2.3 (⊕ IEC 60959) |
|------------------|-------------------------------------|

Conductor connection

| | |
|--|---|
| Connection method | Push-in connection |
| rigid | 4 mm ² ... 6 mm ² |
| flexible | 4 mm ² ... 6 mm ² |
| flexible with ferrule without plastic sleeve | 4 mm ² |
| flexible with ferrule with plastic sleeve | 4 mm ² |
| rigid (AWG) | 10 |
| Stripping length | 10 mm |

Output

| | |
|----------------|--------------------------------------|
| Position | 2.x |
| Identification | 2.4 (L'), 2.5 (N), 2.6 (⊕ IEC 60959) |

Connection technology

| | |
|------------------|--------------------------------------|
| Position marking | 2.4 (L'), 2.5 (N), 2.6 (⊕ IEC 60959) |
|------------------|--------------------------------------|

Conductor connection

| | |
|--|---|
| Connection method | Push-in connection |
| rigid | 4 mm ² ... 6 mm ² |
| flexible | 4 mm ² ... 6 mm ² |
| flexible with ferrule without plastic sleeve | 4 mm ² |
| flexible with ferrule with plastic sleeve | 4 mm ² |
| rigid (AWG) | 10 |

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| | |
|------------------|-------|
| Stripping length | 15 mm |
|------------------|-------|

Battery

| | |
|----------------|--------------------|
| Position | 4.x |
| Identification | 4.1, 4.2; 4.3, 4.4 |

Connection technology

| | |
|------------------|------------------------------------|
| Position marking | 4.1 (+), 4.2 (-), 4.3 (+), 4.4 (-) |
|------------------|------------------------------------|

Conductor connection

| | |
|--|--|
| Connection method | Push-in connection |
| rigid | 6 mm ² ... 16 mm ² |
| flexible | 6 mm ² ... 16 mm ² |
| flexible with ferrule without plastic sleeve | 6 mm ² ... 16 mm ² |
| flexible with ferrule with plastic sleeve | 6 mm ² ... 16 mm ² |
| rigid (AWG) | 8 ... 6 |
| Stripping length | 18 mm |

Signal

| | |
|----------------|-------------|
| Position | 3.x |
| Identification | 3.1 ... 3.9 |

Connection technology

| | |
|------------------|---|
| Position marking | 3.1 (Alarm), 3.2 (Bat.-Mode), 3.3 (Power Good), 3.4 (Ready), 3.5 (P>Pn), 3.6 (Service Required), 3.7 (Bat.-Start), 3.8 (Remote), 3.9 (SGnd) |
|------------------|---|

Conductor connection

| | |
|--|---|
| Connection method | Push-in connection |
| rigid | 0.2 mm ² ... 4 mm ² |
| flexible | 0.2 mm ² ... 4 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) | 24 ... 12 |
| Stripping length | 10 mm |

Interfaces

| | |
|----------------------|--|
| Interface | Battery module communication interface |
| Number of interfaces | 1 |
| Connection method | RJ45 |
| Position | 5.x |
| Locking | Locking clip |
| Transmission physics | Twisted-Pair 4x2 |
| Interface | Parallel operation communication interface |
| Number of interfaces | 2 |
| Connection method | RJ45 |

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| | |
|----------------------|------------------|
| Position | 5.x |
| Locking | Locking clip |
| Transmission physics | Twisted-Pair 4x2 |

Signaling

Signal input Bat.-Start

| | |
|-------------|---|
| Low signal | Connection to SGnd with $< 2.7 \text{ k}\Omega$ |
| High signal | Open ($> 200 \text{ k}\Omega$ between Bat.-Start and SGnd) |

Signal input Remote

| | |
|-------------|--|
| Low signal | Connection to SGnd with $< 2.7 \text{ k}\Omega$ |
| High signal | Open ($> 35 \text{ k}\Omega$ between Remote and SGnd) |

Signal output Alarm

| | |
|---------------------------|---------------------------|
| Position | 3.x |
| Signalization designation | Alarm |
| Position marking | 3.1 (Alarm) |
| Switching output | Transistor output, active |
| Output voltage | 24 V |
| Continuous load current | $\leq 20 \text{ mA}$ |

Signal output Battery Mode

| | |
|---------------------------|---------------------------|
| Position | 3.x |
| Signalization designation | Bat.-Mode |
| Position marking | 3.2 (Bat.-Mode) |
| Switching output | Transistor output, active |
| Output voltage | 24 V |
| Continuous load current | $\leq 20 \text{ mA}$ |

Signal output Power Good

| | |
|---------------------------|---------------------------|
| Position | 3.x |
| Signalization designation | Power Good |
| Position marking | 3.3 (Power Good) |
| Switching output | Transistor output, active |
| Output voltage | 24 V |
| Continuous load current | $\leq 20 \text{ mA}$ |

Signal output Ready

| | |
|---------------------------|---------------------------|
| Position | 3.x |
| Signalization designation | Ready |
| Position marking | 3.4 (Ready) |
| Switching output | Transistor output, active |
| Output voltage | 24 V |
| Continuous load current | $\leq 20 \text{ mA}$ |

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Signal output $P > P_N$

| | |
|---------------------------|---------------------------|
| Position | 3.x |
| Signalization designation | $P > P_n$ |
| Position marking | 3.5 ($P > P_n$) |
| Switching output | Transistor output, active |
| Output voltage | 24 V |
| Continuous load current | ≤ 20 mA |

Signal output Service Required

| | |
|---------------------------|---------------------------|
| Position | 3.x |
| Signalization designation | Service Required |
| Position marking | 3.6 (Service Required) |
| Switching output | Transistor output, active |
| Output voltage | 24 V |
| Continuous load current | ≤ 20 mA |

Signal ground SGnd

| | |
|---------------------|--------------------------------------|
| Function | Signal ground |
| Reference potential | For signal inputs and signal outputs |

Product properties

| | |
|----------------|--------------|
| Product type | AC UPS |
| Product family | QUINT AC-USV |

Insulation characteristics

| | |
|----------------------|----|
| Protection class | I |
| Overvoltage category | II |
| Pollution degree | 3 |

Dimensions

Item dimensions

| | |
|--------|--------|
| Width | 188 mm |
| Height | 240 mm |
| Depth | 143 mm |

Drill hole

| | |
|----------|--------|
| Diameter | 5.5 mm |
|----------|--------|

Installation dimensions

| | |
|----------------------------------|---------------|
| Installation distance right/left | 0 mm / 0 mm |
| Installation distance top/bottom | 50 mm / 50 mm |

Mounting

| | |
|---------------|---------------|
| Mounting type | Wall mounting |
|---------------|---------------|

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Environmental and real-life conditions

Ambient conditions

| | |
|--|--|
| Degree of protection | IP20 |
| Ambient temperature (operation) | -25 °C ... 60 °C (> 50 °C: 2,5 % / K) |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Maximum altitude | ≤ 4000 m (> 1000 m: 3 % / 1000 m) |
| Max. permissible relative humidity (operation) | ≤ 95 % |
| Shock | 30g in each direction, according to IEC 60068-2-27 |
| Vibration (operation) | 5 Hz ... 100 Hz, 0.7g (EN 60068-2-6) |

Approvals

UL

| | |
|----------------|----------------------------|
| Identification | UL/C-UL Recognized UL 1778 |
|----------------|----------------------------|

EMC data

| | |
|-------------------------------|---|
| Low Voltage Directive | Conformance with Low Voltage Directive 2014/35/EC |
| Interference emission | Noise emission |
| Noise immunity | Immunity |
| Electromagnetic compatibility | Conformance with EMC Directive 2014/30/EU |
| Conducted noise emission | EN 62040-02 (Class C2) |

Electrostatic discharge

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

Electrostatic discharge

| | |
|-------------------|-------------|
| Contact discharge | ± 6 kV |
| Discharge in air | ± 8 kV |
| Comments | Criterion A |

Electromagnetic HF field

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

Electromagnetic HF field

| | |
|---------------------|------------------|
| Frequency range | 80 MHz ... 6 GHz |
| Test field strength | 10 V/m |
| Comments | Criterion A |

Fast transients (burst)

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

Fast transients (burst)

| | |
|--------|--------|
| Input | ± 2 kV |
| | ± 2 kV |
| Output | ± 2 kV |

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| | |
|----------|---|
| Signal | ± 2 kV |
| | ± 2 kV (Communication parallel operation, battery module) |
| Comments | Criterion A |

Surge voltage load (surge)

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

Surge voltage load (surge)

| | |
|--------------|-----------------------|
| Signal | 1 kV (asymmetrical) |
| Comments | Criterion B |
| Input/Output | ± 1 kV (symmetrical) |
| | ± 2 kV (asymmetrical) |

Conducted interference

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

Conducted interference

| | |
|-----------------|---------------------|
| Frequency range | 0.15 MHz ... 80 MHz |
| Signal | 10 V (asymmetrical) |
| Comments | Criterion A |

Power frequency magnetic field

| | |
|-----------------------|--------------|
| Standards/regulations | EN 61000-4-8 |
| Frequency | 60 Hz |
| Signal | 30 A/m |
| Comments | Criterion A |

Harmonic and interharmonic components

| | |
|-----------------------|---------------|
| Standards/regulations | EN 61000-4-13 |
|-----------------------|---------------|

Harmonic and interharmonic components

| | |
|----------|-------------|
| Comments | Criterion A |
|----------|-------------|

Criteria

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

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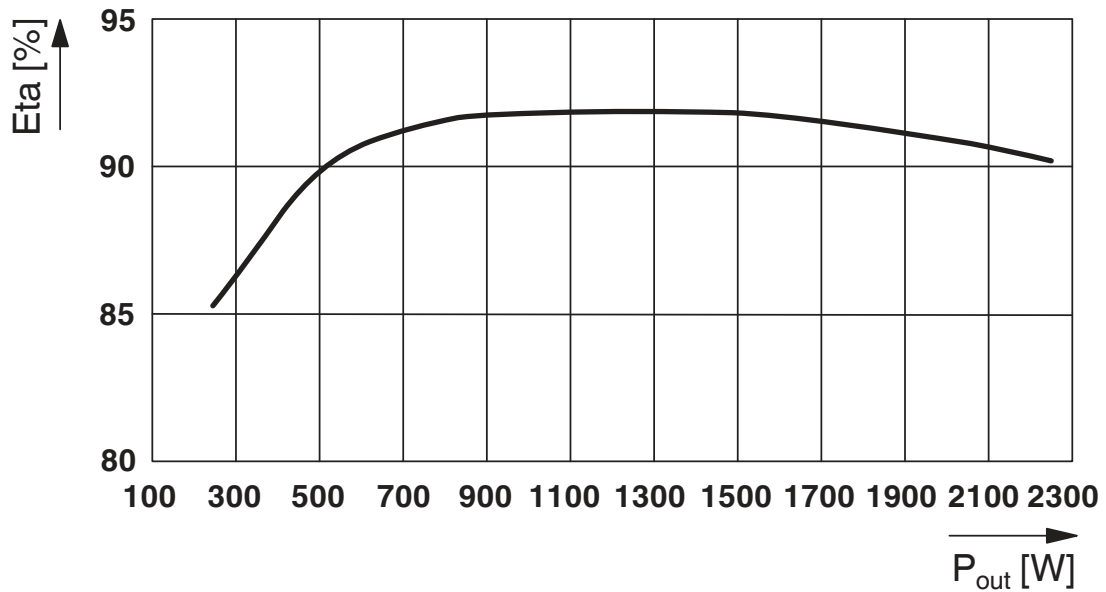


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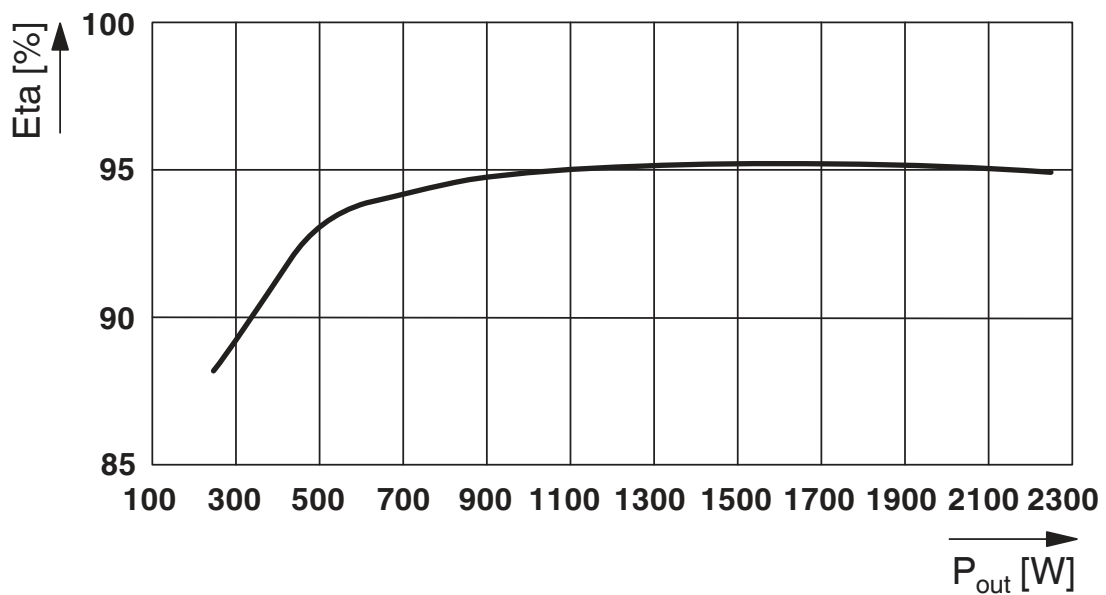
Drawings

Diagram



Efficiency (battery operation)

Diagram



Efficiency (normal operation)

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Approvals

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cULus Listed

Approval ID: E342453-20230825



cULus Listed

Approval ID: E359066-20230901

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27040705 |
| ECLASS-11.0 | 27040705 |

ETIM

| | |
|----------|----------|
| ETIM 8.0 | EC000382 |
|----------|----------|

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Environmental product compliance

EU RoHS

| | |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

China RoHS

| | |
|--|---|
| Environment friendly use period (EFUP) | EFUP-50 |
| | 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.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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Accessories

PLT-SEC-T3-120-FM-UT - Type 3 surge protection device

2907918

<https://www.phoenixcontact.com/gb/products/2907918>



Type 2/3 surge protection, consisting of protective plug and base element, with integrated status indicator and remote signaling for single-phase power supply networks. Nominal voltage: 120 V AC/DC

QUINT-HP-BAT/PB/48DC/7.0AH/PT - Battery module

1133819

<https://www.phoenixcontact.com/gb/products/1133819>



Battery module, VRLA-AGM, 48 V DC, 7 Ah

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QUINT-HP-COM/USB-SER - Interface card

1252055

<https://www.phoenixcontact.com/gb/products/1252055>

USB/RS-232/RS-485 interface card for QUINT-HP-AC UPS



QUINT-HP-FAN - Fan

1252068

<https://www.phoenixcontact.com/gb/products/1252068>

Replaceable fan module for QUINT-HP-AC UPS



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