# TRIO-UPS-2G/1AC/24DC/20 - Uninterruptible power supply

1105556

https://www.phoenixcontact.com/in/products/1105556

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TRIO UPS - UPS with integrated power supply, USB (Modbus/RTU), DIN rail mounting, Push-in connection, input: 1-phase, output: 24 V DC / 20 A

## Product description

Supply DC loads reliably and save space with the TRIO uninterruptible power supplies. An input grid is no longer necessary for startup. Connected industrial PCs can be shut down easily via the integrated USB interface.

## Your advantages

- Space saving: Combination of UPS module and power supply in the same housing
- Long buffer times, thanks to large selection of VRLA energy storage systems
- USB interface for connection to higher-level controllers such as industrial PCs
- Startup from the energy storage system possible, even without mains input
- Universal range of possible applications, thanks to a comprehensive package of approvals and an extended temperature range
- Easy installation, thanks to push-in connection technology

## Commercial data

| | |
|---|---|
| Item number | 1105556 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | CMU |
| Product key | CMUO13 |
| GTIN | 4055626988900 |
| Weight per piece (including packing) | 2,003.96 g |
| Weight per piece (excluding packing) | 1,697 g |
| Customs tariff number | 85044095 |
| Country of origin | CN |

## Technical data

### Input data

| | |
|---|---|
| Input voltage range | 100 V AC ... 240 V AC -15 % ... +10 % |
| Voltage type of supply voltage | AC |
| Inrush current | < 10 A |
| Inrush current integral ($I^2t$) | < 0.4 $A^2s$ |
| Frequency range ($f_N$) | 50 Hz ... 60 Hz (±10 %) |
| Mains buffering time | ≥ 20 ms (120 V AC) |
| Switch-on time | typ. 200 ms |
| Typical current consumption | 6.4 A (100 V AC) |
| Input fuse | 10 A (slow-blow, internal) |

Signal Bat.-Start

| | |
|---|---|
| Connection labeling | 3.6 |
| Signalization designation | Bat.-Start |
| Low signal | Connection to SGnd with < 2.7 kΩ |
| High signal | Open (> 200 kΩ between Bat.-Start and SGnd) |

Signal Remote

| | |
|---|---|
| Connection labeling | 3.5 |
| Signalization designation | Remote |
| Low signal | Connection to SGnd with < 2.7 kΩ |
| High signal | Open (> 35 kΩ between Remote and SGnd) |

### Output data

| | |
|---|---|
| Efficiency | typ. 88 % (100 V AC) |
| | typ. 92 % (240 V AC) |
| | typ. (Battery operation) |
| Derating | > 60 °C (2.5%/K of $P_{Out}$ nom.) |
| Crest factor | 1.57 (120 V AC) |
| | 1.58 (230 V AC) |
| Switch-over time | < 3 ms |
| UPS connection in parallel | yes, with diode module uncoupled |
| UPS connection in series | no |
| Energy storage device connection in parallel | yes |
| Feedback voltage resistance | ≤ 35 V DC |
| Protection against overvoltage at the output (OVP) | < 30 V DC |
| Residual ripple | < 20 mV |
| Control deviation | < 0.4 % (change in load, static 10 % ... 90 %) |
| | < 2.9 % (Dynamic load change 10 % ... 90 %, 10 Hz) |
| | < 0.1 % (change in input voltage ±10 %) |
| Rise time | < 34 ms |
| Permissible backup fuse | B16 |

Mains operation

| | |
|---|---|
| Output voltage | 24 V DC |
| Output voltage range | 24 V DC ... 28 V DC (> 24 V constant capacity) |
| Output current $I_N$ | 20 A |
| Dynamic Boost ($I_{Dyn.Boost}$) | 30 A |
| Maximum no-load power dissipation | < 4 W (230 V AC) |
| Power loss nominal load max. | < 50 W (230 V AC) |

Battery operation

| | |
|---|---|
| Output voltage | $U_{BAT}$ -0.1 V DC |
| Output voltage range | 18 V DC ... 30 V DC |
| Output current $I_N$ | 20 A |

Signal Alarm

| | |
|---|---|
| Connection labeling | 3.2 |
| Signalization designation | Alarm |
| Type of signaling | LED red |
| Switching output | Transistor output, active |
| Output voltage | 24 V DC |
| Continuous load current | 20 mA |
| LED status indicator | red |

Signal Battery mode

| | |
|---|---|
| Connection labeling | 3.3 |
| Signalization designation | Battery mode |
| Type of signaling | Yellow LED |
| Switching output | Transistor output, active |
| Output voltage | 24 V DC |
| Continuous load current | 20 mA |
| LED status indicator | yellow |

Signal DC OK

| | |
|---|---|
| Connection labeling | 3.1 |
| Signalization designation | DC OK |
| Type of signaling | Green LED |
| Switching output | Transistor output, active |
| Output voltage | 24 V DC |
| Continuous load current | 20 mA |
| LED status indicator | green |

Signal Ready

| | |
|---|---|
| Connection labeling | 3.4 |
| Signalization designation | Ready |
| Switching output | Transistor output, active |
| Output voltage | 24 V DC |
| Continuous load current | 20 mA |