

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



2906990

<https://www.phoenixcontact.com/in/products/2906990>

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QUINT USV, IQ Technology, 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<sup>®</sup> 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	2906990
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	CMU
Product Key	CMUI43
Catalog Page	Page 324 (C-4-2019)
GTIN	4055626171227
Weight per Piece (including packing)	507.4 g
Weight per Piece (excluding packing)	440 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	≤ 7 A (≤ 4 ms)
Reverse polarity protection	yes
Fixed backup threshold	22 V DC 30 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 $I_{No-Load}$ ( $U_N$ , $I_{OUT} = 0$ , $I_{charge} = 0$ )	45 mA
Current consumption $I_{charge}$ ( $U_N$ , $I_{OUT} = 0$ , $I_{charge} = max$ )	1.8 A
Power consumption $P_N$ ( $U_N$ , $I_{OUT} = I_N$ , $I_{charge} = 0$ )	121 W
Power consumption $P_{max}$ ( $U_N$ , $I_{OUT} = I_{Stat.Boost}$ , $I_{charge} = max$ )	211 W
Power consumption $P_{No-Load}$ ( $U_N$ , $I_{OUT} = 0$ , $I_{charge} = 0$ )	1.1 W
Power consumption $P_{charge}$ ( $U_N$ , $I_{OUT} = 0$ , $I_{charge} = max$ )	43 W

### Signal state Bat.-Start

Connection labeling	3.8 (+)
Channel	DI (digital input)
State	Bat.-Mode
State condition	Low level (30 ms)
Low signal	Input connected with SGnd (3.9) or Bat
High signal	Input not connected or connected with $>U_{Bat}$
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 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), <5 V DC or not connected
High signal	Input connected with 13 ... 30 V DC

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Signal - state assignment	low - active
Analog	4 mA ... 20 mA (Offset zero point)
Unit signal	I (mA)
Load	390 Ω
Reference potential	3.9 (SGnd, identical to 1.2, 2.2, 4.2)

## 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 <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)

## 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	no
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 ( $U_{OUT} = U_{IN} - 0.3 \text{ V DC}$ )
Output voltage range	18 V DC ... 30 V DC ( $U_{OUT} = U_{IN} - 0.3 \text{ V DC}$ ) 18 V DC ... 32 V DC ( $U_{OUT} = U_{IN} - 0.3 \text{ V DC}$ )
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 $P_{OUT}$ ( $U_N, I_{OUT} = I_{Stat.Boost}$ )	150 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 ( $U_{OUT} = U_{BAT} - 0.3 \text{ V DC}$ )
Output voltage range	19 V DC ... 28 V DC ( $U_{OUT} = U_{BAT} - 0.3 \text{ V DC}$ )