



Power supplies and UPS

**For superior  
system availability**

# POWER for superior system availability

**Our POWER products supply your application with leading technology and high quality.**

Power supplies, DC/DC converters, redundancy modules, and uninterruptible power supplies are tailored in terms of their functionality and design to the requirements of various different industries and always offer the ideal solution.

With our QUINT, TRIO, UNO, MINI, and STEP product ranges, you are optimally equipped to handle competitors on an international scale.

Choose from our wide range.



## Power supplies and DC/DC converters

### SFB (selective fuse breaking) technology:

- Six times the nominal current for 12 ms
- Reliably switches off faulty current paths in the event of a short circuit
- Important system parts remain in operation without any interruption

For more information, refer to page 6 and onwards.



## Redundancy modules

### ACM (auto current balancing) technology:

- Even distribution of the load for redundant power supplies
- Low thermal load for both power supplies
- Service life of the redundant solution is doubled

For more information, refer to page 26 and onwards.



## Uninterruptible power supplies

### IQ technology:

- Intelligent battery management
- Optimizes and keeps you informed of the remaining runtime, state of charge, and service life of the power storage
- Optimized charging characteristic for maximum service life
- Communication with higher-level controllers

For more information, refer to page 30 and onwards.



## Contents

### Overview of power supplies

Page 4 – 5

### Power supplies

SFB technology

Page 6 – 7

QUINT POWER

Page 8 – 10

QUINT POWER for  
extreme requirements

Page 11

TRIO POWER

Page 12 – 13

UNO POWER

Page 14 – 15

MINI POWER

Page 16 – 17

STEP POWER

Page 18 – 19

### DC/DC converters

Page 20 – 23

### Power supplies for frequency inverters

Page 24 – 25

### Redundancy modules

Page 26 – 29

### Uninterruptible power supplies (UPS)

IQ technology

Page 30 – 33

QUINT UPS

Page 34 – 35

Power storage for QUINT UPS

Page 36 – 37

Selection guide for QUINT UPS

Page 38 – 41

Signaling and configuration

Page 42 – 43

Communication

Page 44 – 45

UPS with integrated  
power storage

Page 46 – 47

UPS with integrated  
power supply

Page 48 – 49

### Accessories

Page 50

### Standards and approvals

Page 51 – 55

# Power supplies – a comparison of the advantages

The product ranges differ with regard to their design, performance, and functionality.

Select the ideal solution based on your requirements:

- QUINT POWER  
Maximum functionality
- TRIO POWER  
Robust standard functionality
- UNO POWER  
Compact basic functionality

The product range is supplemented with types tailor-made for specific applications:

- MINI POWER for measurement and control technology
- STEP POWER for installation distributors





**IQ**  
TECHNOLOGY

**SFB**  
TECHNOLOGY

**ACB**  
TECHNOLOGY



**1000 W**  
**40 A**

**1000 W**  
**40 A**

STEP POWER	MINI POWER	UNO POWER	TRIO POWER	QUINT POWER	
•	•	•	•	•	<b>Worldwide use</b> thanks to the wide range input and international approval package
•	•	•	•	•	<b>Maximum operating time</b> thanks to high MTBF > 500,000 h at 40°C
•	•	•	•	•	<b>Can be switched in parallel</b> for increased performance and redundancy
•	•	•	•	•	<b>Outdoor installation permitted</b> thanks to wide temperature range from -25°C... +70°C
			•	•	<b>Three-phase devices</b> error-free operation, even if one phase fails permanently
	•		•	•	<b>Active function monitoring</b> by means of switching output for remote diagnostics
			•		<b>Quick installation</b> thanks to tool-free push-in connection
			•	•	<b>Reliable starting of difficult loads</b> with the dynamic power reserve
				•	<b>Easy system extension</b> with the POWER BOOST static power reserve
				•	<b>Preventive function monitoring</b> indicates critical operating states before errors occur
				•	<b>Fast tripping of circuit breakers</b> thanks to SFB technology

# QUINT POWER power supplies for superior system availability thanks to SFB technology

Compact power supplies and DC/DC converters from the QUINT POWER range maximize the availability of your system.

Even standard circuit breakers can be tripped reliably and quickly with SFB (selective fuse breaking) technology and six times the nominal current for 12 ms. Faulty current paths are switched off selectively, the fault is located, and important system parts remain in operation.

Comprehensive diagnostics are provided through constant monitoring of the output voltage and output current. This preventive function monitoring visualizes critical operating states and indicates them to the controller before errors can occur.

QUINT POWER guarantees superior system availability.





## SFB TECHNOLOGY

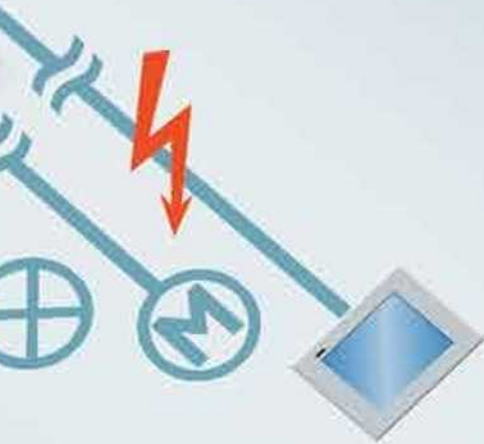
### Cost-effective selective protection with SFB technology

In order to trip standard circuit breakers magnetically and therefore quickly, power supplies must be able to supply several times the nominal current for a short period. With SFB technology, which supplies up to six times the nominal current for 12 ms, a dynamic power reserve is available.

**Example:** frayed display cable – the fuse trips, the lower-level display is dark. The controller, sensors, and actuators continue to operate without interruption – production continues.

The maximum cable lengths are described in the configuration matrix, which is available as a free download on the Phoenix Contact website under “Power supplies with maximum functionality”.

In addition, tailor-made thermomagnetic circuit breakers, which trip even with extremely long cables, are designed specifically for SFB technology.



# QUINT POWER power supplies – maximum functionality

The unique SFB technology and preventive function monitoring of the QUINT POWER power supply increase the availability of your application.

- **Worldwide use**

thanks to the wide range input and international approval package

- **High operational reliability**

thanks to high MTBF > 500,000 h,  
long mains buffering times > 20 ms,  
high electric strength of single-phase devices of up to 300 V AC

- **Three-phase devices**

enable error-free operation, even in the event of a permanent phase failure,  
high surge resistance of up to 6 kV thanks to integrated gas-filled surge arrester

- **Comprehensive approvals,**

e.g., semiconductor production:

SEMI F47-0706

Shipbuilding:

GL, ABS, BV, LR, NK, DNV, RINA

Medical standard: IEC 60601

DeviceNet™

ATEX





## SFB TECHNOLOGY



### Your advantages

#### Fast tripping of standard circuit breakers

- Dynamic power reserve with SFB technology with up to six times the nominal current for 12 ms

#### Preventive function monitoring

- Indicates critical operating states before errors occur, thanks to permanent monitoring of the output voltage and output current
- Remote monitoring using active switching outputs and floating relay contact

#### Reliable starting of difficult loads and easy system extension

- POWER BOOST static power reserve with up to 1.5 times the nominal current permanently

#### Easy-maintenance connection technology

- Coded COMBICON connectors (up to and including 10 A)

#### Minimize installation costs

- Third negative terminal block for grounding on the secondary side

#### Compensation of voltage drops

- Output voltage can be set on the front
- A voltage range of 5 ... 56 V DC can be covered with three power supplies with output voltages of 12, 24, and 48 V DC

#### Saves over 50% space in the control cabinet

- Slim design, e.g., 40 A output current in 96 mm wide housing






#### Robust design

- Metal housing and wide temperature range from  $-25^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$
- Device startup at  $-40^{\circ}\text{C}$  (type-tested)
- Devices with protective coating from  $-40^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$

## QUINT POWER 1~



**Input:** 1-phase, 85 ... 264 V AC, 90 ... 350 V DC, for 24 V/40 A and 48 V/20 A: 90 ... 300 V DC

				
<b>24 V / 3.5 A</b>	<b>24 V / 5 A</b>	<b>24 V / 10 A</b>	<b>24 V / 20 A</b>	<b>24 V / 40 A</b>
<b>QUINT-PS/1AC/24DC/3.5</b> 2866747	<b>QUINT-PS/1AC/24DC/5</b> 2866750	<b>QUINT-PS/1AC/24DC/10</b> 2866763	<b>QUINT-PS/1AC/24DC/20</b> 2866776	<b>QUINT-PS/1AC/24DC/40</b> 2866789
		<b>48 V / 5 A</b>	<b>48 V / 10 A</b>	<b>48 V / 20 A</b>
		<b>QUINT-PS/1AC/48DC/5</b> 2866679	<b>QUINT-PS/1AC/48DC/10</b> 2866682	<b>QUINT-PS/1AC/48DC/20</b> 2866695
		<b>12 V / 15 A</b>	<b>12 V / 20 A</b>	
		<b>QUINT-PS/1AC/12DC/15</b> 2866718	<b>QUINT-PS/1AC/12DC/20</b> 2866721	

## QUINT POWER 3~



**Input:** 3-phase, 3 x 320 ... 575 V AC, 450 ... 800 V DC

			
<b>24 V / 5 A</b>	<b>24 V / 10 A</b>	<b>24 V / 20 A</b>	<b>24 V / 40 A</b>
<b>QUINT-PS/3AC/24DC/5</b> 2866734	<b>QUINT-PS/3AC/24DC/10</b> 2866705	<b>QUINT-PS/3AC/24DC/20</b> 2866792	<b>QUINT-PS/3AC/24DC/40</b> 2866802
			<b>48 V / 20 A</b>
			<b>QUINT-PS/3AC/48DC/20</b> 2320827

## Accessories

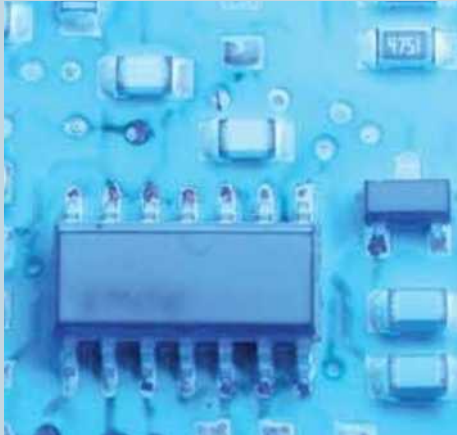
### Fan for QUINT, QUINT-PS/FAN/4 2320076

With the standard power supply mounting position, the temperature range increases by 10 K (max. ambient temperature of 70°C); when the mounting position is rotated, position-dependent derating no longer applies. Tool-free mounting.

### Thermomagnetic circuit breakers for QUINT

Device circuit breakers with the SFB tripping characteristic provide maximum overcurrent protection – even in large systems with long cable paths. The comprehensive product range can be found on the Phoenix Contact website under “Products/Protective devices”.

# QUINT POWER power supplies for extreme requirements



Inaccessible parts of the PCB are protected by the coating, e.g., wired components (coated areas appear blue).

These power supplies in the QUINT series satisfy the most stringent requirements of sensitive loads. DC/DC converters with the same properties can be found on page 23.

For extreme ambient conditions:

- Coating on the PCB protects against dust, corrosive gases, and 100% humidity as well as failure caused by corrosion-related creepage currents and electrochemical migration
- Wide temperature range from  $-40^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$

For sensitive loads, e.g., in process technology: OVP (Over Voltage Protection) limits surge voltages to 32 V, also useful in redundant operation with QUINT ORING (see page 26).

## QUINT POWER, coated



**Input:** 1-phase: 85 ... 264 V AC, 90 ... 410 V DC, for 1 AC / 24 V / 20 A: 90 ... 350 V DC / 3-phase: 3 x 320 ... 575 V AC, 450 ... 800 V DC

<b>1 AC / 24 V / 5 A</b>	<b>1 AC / 24 V / 10 A</b>	<b>1 AC / 24 V / 20 A</b>	<b>3 AC / 24 V / 20 A</b>
<b>QUINT-PS/1AC/24DC/5/CO</b> 2320908	<b>QUINT-PS/1AC/24DC/10/CO</b> 2320911	<b>QUINT-PS/1AC/24DC/20/CO</b> 2320898	<b>QUINT-PS/3AC/24DC/20/CO</b> 2320924

# TRIO POWER power supplies – robust standard functionality

The TRIO POWER power supplies are perfect for use in machine building. All functions and the space-saving design are tailored to the high requirements in this field. The power supply units, which feature an extremely robust electrical and mechanical design, ensure the reliable supply of all loads even under harsh ambient conditions.



Save time thanks to quick and easy installation with push-in connection

## Your advantages for TRIO POWER with push-in connection

### Very cost-effective

- Quick installation, thanks to tool-free push-in connection
- Slim design

### Reliable starting of difficult loads

- Dynamic power reserve with 150% of the nominal current for 5 s

### Robust design

- Robust electrical design with high electric strength of single-phase devices up to 300 V AC, error-free function of the three-phase modules, even if one phase fails permanently
- Robust mechanical design with vibration resistance up to 4g and shock resistance up to 30g
- High MTBF > 1 million hours
- Metal housing from 10 A and wide temperature range from -25°C to +70°C
- Device startup at -40°C (from 10 A, type-tested)



## TRIO POWER push-in connection 1~

Input: 1-phase, 85 ... 264 V AC, 99 ... 275 V DC



**24 V / 3 A**

**TRIO-PS-2G/1AC/24DC/3/C2LPS**  
2903147

Certified according to UL 1310/508  
Listed Class 2



**24 DC / 5 A**

**TRIO-PS-2G/1AC/24DC/5**  
2903148



**24 DC / 10 A**

**TRIO-PS-2G/1AC/24DC/10**  
2903149



**24 DC / 20 A**

**TRIO-PS-2G/1AC/24DC/20**  
2903151

## TRIO POWER push-in connection 3~

Input: 3-phase, 3 x 320 ... 575 V AC, 2 x 360 ... 575 V AC, 450 ... 780 V DC



**24 V / 5 A**

**TRIO-PS-2G/3AC/24DC/5**  
2903153



**24 DC / 10 A**

**TRIO-PS-2G/3AC/24DC/10**  
2903154



**24 DC / 20 A**

**TRIO-PS-2G/3AC/24DC/20**  
2903155



**4-channel**

**CBM E4 24DC/0,5-10A NO-R**  
2905743

**8-channel**

**CBM E8 24DC/0,5-10A NO-R**  
2905744

## TRIO POWER screw connection 1~

Input: 1-phase, 85 ... 264 V AC



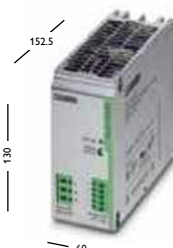
**12 V / 5 A**

**TRIO-PS/1AC/12DC/5**  
2866475



**12 V / 10 A**

**TRIO-PS/1AC/12DC/10**  
2866488



**48 V / 5 A**

**TRIO-PS/1AC/48DC/5**  
2866491



**48 V / 10 A**

**TRIO-PS/1AC/48DC/10**  
2866501



**24 V / 40 A**

**TRIO-PS/3AC/24DC/40**  
2866404

## ... 3~

3-phase, 3 x 320 ... 575 V AC

# UNO POWER power supplies – compact basic functionality

Thanks to their high power density, UNO POWER power supplies offer the ideal solution for loads up to 240 W, particularly in compact control boxes. The wide range of products covers all common voltage levels.



With nominal voltages from 5 V DC to 48 V DC, UNO POWER covers all the typical voltage levels used in the industry

## Your advantages

### Maximum energy efficiency

- Save energy, thanks to high efficiency of up to 94%
- Save energy, thanks to extremely low idling losses below 0.3 W

### Extremely compact

- Save space in the control cabinet, thanks to the extremely high power density of 325 W/dm<sup>3</sup>, e.g., 240 W power in narrow 45 mm housing
- Housing depth of just 84 mm up to 100 W, tailored to all popular 120 mm control boxes

### Outdoor installation






- Wide temperature range from -25°C to +70°C



SAVE ENERGY

## UNO POWER 1~

Input: 1-phase, 85 ... 264 V AC

				
<b>24 DC / 30 W</b> <b>UNO-PS/1AC/24DC/30W</b> 2902991	<b>24 DC / 60 W</b> <b>UNO-PS/1AC/24DC/60W</b> 2902992	<b>24 DC / 100 W</b> <b>UNO-PS/1AC/24DC/100W</b> 2902993	<b>24 DC / 150 W</b> <b>UNO-PS/1AC/24DC/150W</b> 2902994	<b>24 DC / 240 W</b> <b>UNO-PS/1AC/24DC/240W</b> 2904371
		<b>24 DC / 90 W *</b> <b>UNO-PS/1AC/24DC/90W/C2LPS</b> 2902994		
		<b>48 DC / 60 W</b> <b>UNO-PS/1AC/48DC/60W</b> 2902995	<b>48 DC / 100 W</b> <b>UNO-PS/1AC/48DC/100W</b> 2902996	
<b>15 DC / 30 W</b> <b>UNO-PS/1AC/15DC/30W</b> 2903000	<b>15 DC / 55 W</b> <b>UNO-PS/1AC/15DC/55W</b> 2903001	<b>15 DC / 100 W</b> <b>UNO-PS/1AC/15DC/100W</b> 2903002		
<b>12 DC / 30 W</b> <b>UNO-PS/1AC/12DC/30W</b> 2902998	<b>12 DC / 55 W</b> <b>UNO-PS/1AC/12DC/55W</b> 2902999	<b>12 DC / 100 W</b> <b>UNO-PS/1AC/12DC/100W</b> 2902997		
<b>5 DC / 25 W</b> <b>UNO-PS/1AC/5DC/25W</b> 2904374	<b>5 DC / 40 W</b> <b>UNO-PS/1AC/5DC/40W</b> 2904375			

## UNO POWER 2~

Input: 2-phase, 264 ... 575 V AC



**24 DC / 90 W \***

**UNO-PS/2AC/24DC/90W/C2LPS**  
2904371

\* Certified according to UL 1310/508 Listed Class 2

# MINI POWER power supplies for measurement and control technology

Modular electronics housing is used as standard in measurement and control technology. MINI POWER is the ideal power supply for this type of application.

## Your advantages

### Easy-maintenance connection technology

- Coded COMBICON connectors

### Flexible

- Numerous output voltages and versions available

### Function monitoring

- Active function monitoring via the switching output for remote monitoring of the output voltage



## MINI POWER 1~

Input: 1-phase, 85 ... 264 V AC, 90 ... 350 V DC



**24 V / 1.3 A**

**MINI-PS-100-240AC/24DC/1.3**  
2866446



**24 V / 2 A**

**MINI-PS-100-240AC/24DC/2**  
2938730



**±15 V / 1 A**

**MINI-PS-100-240AC/2x15DC/1**  
2938743

**5 V / 3 A**

**MINI-PS-100-240AC/5DC/3**  
2938714

**10 ... 15 V / 2 A**

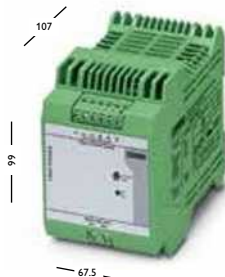
**MINI-PS-100-240AC/10-15DC/2**  
2938756

Input: 1-phase, 85 ... 264 V AC, 90 ... 350 V DC



**24 V / 4 A**

**MINI-PS-100-240AC/24DC/4**  
2938837



**24 V / 100 W**

**MINI-PS-100-240AC/24DC/C2LPS**  
2866336

Certified according to UL 1310/508 Listed Class 2

**10 ... 15 V / 8 A**

**MINI-PS-100-240AC/10-15DC/8**  
2866297

Input: 1-phase, 85 ... 264 V AC



**24 V / 1.5 A**

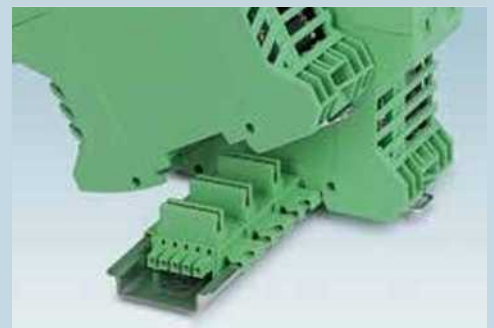
**MINI-SYS-PS-100-240AC/24DC/1.5**  
2866983

**24 V / 1.5 A**

**MINI-PS-100-240AC/24DC/1.5/EX**  
2866653



### Accessories for 24 V / 1.5 A



**DIN rail connector**

**ME 17,5 TBUS 1.5/5-ST3,82 GN**  
2709561

Optional, 2 required per power supply  
(24 V/1.5 A)

# STEP POWER power supplies for installation distributors

STEP POWER power supplies are ideal for installation distributors and flat control panels. The low idling losses and the high degree of efficiency ensure maximum energy efficiency in its class.



*When mounting on level surfaces: lugs integrated in the housing eliminate the need for additional mounting material*

## Your advantages

### Flexible mounting

- Snap onto the DIN rail or screw on a level surface

### Reliable supply

- High MTBF > 500,000 h
- U/I characteristic curve for supplying capacitive loads

### Outdoor installation

- Wide temperature range from  $-25^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$

### Use in domestic installation

- All 18 W devices meet standard EN 60335-1 for household appliances and are suitable for installation in ventilation systems, for example

### Save energy

- Maximum energy efficiency and incredibly low idling losses





**SAVE ENERGY**



## STEP POWER 1~

Input: 1-phase, 85 ... 264 V AC, 95 ... 250 V DC

	 Flat design		
<b>24 V / 0.5 A</b> STEP-PS/1AC/24DC/0.5 2868596	<b>24 V / 0.75 A FL</b> STEP-PS/1AC/24DC/0.75/FL 2868622	<b>24 V / 0.75 A</b> STEP-PS/1AC/24DC/0.75 2868635	<b>24 V / 1.75 A</b> STEP-PS/1AC/24DC/1.75 2868648
<b>12 V / 1 A</b> STEP-PS/1AC/12DC/1 2868538	<b>12 V / 1.5 A FL</b> STEP-PS/1AC/12DC/1.5/FL 2868554	<b>12 V / 1.5 A</b> STEP-PS/1AC/12DC/1.5 2868567	<b>12 V / 3 A</b> STEP-PS/1AC/12DC/3 2868570
<b>5 V / 2 A</b> STEP-PS/1AC/5DC/2 2320513			

			
<b>24 V / 2.5 A</b> STEP-PS/1AC/24DC/2.5 2868651	<b>5 V / 6.5 A</b> STEP-PS/1AC/5DC/6.5 2868541	<b>24 V / 4.2 A</b> STEP-PS/1AC/24DC/4.2 2868664	<b>24 V / 100 W</b> STEP-PS/1AC/24DC/3.8/C2LPS 2868677
<b>12 V / 5 A</b> STEP-PS/1AC/12DC/5 2868583	<b>15 V / 4 A</b> STEP-PS/1AC/15DC/4 2868619	<b>48 V / 2 A</b> STEP-PS/1AC/48DC/2 2868680	Certified according to UL 1310/508 Listed Class 2

## STEP for 48 V AC

Input: 1-phase,  
43 ... 52 V AC, 60 ... 80 V DC



**48 V AC / 24 DC / 0.5 A**  
STEP-PS/48AC/24DC/0.5  
2868716

## STEP for 277 V AC

Input: 1-phase,  
85 ... 305 V AC, 95 ... 250 V DC



**277 V AC / 24 DC / 3.5 A**  
STEP-PS/277AC/24DC/3.5  
2904945

# DC/DC converters adapt voltages

QUINT and MINI DC/DC converters alter the voltage level, regenerate the voltage at the end of long cables or enable the creation of independent supply systems by means of electrical isolation.

## Your advantages

### Regeneration of the output voltage

- Constant voltage, even at the end of long cables
- Wide input voltage range
  - **24 V**: 18 ... 32 VDC, from 14 ... 32 VDC during operation
  - **12 V**: 9 ... 18 VDC
  - **48 V**: 30 ... 60 VDC
  - 42 ... 96 V DC and 67 ... 154 V DC wide range inputs

### Fast tripping of standard circuit breakers

- Dynamic power reserve with SFB technology with up to six times the nominal current for 12 ms (for details on SFB technology, see pages 6/7)

### Preventive function monitoring

- Indicates critical operating states before errors occur, thanks to permanent monitoring of the input voltage, output voltage, and output current
- Remote monitoring using active switching output and floating relay contact

### Reliable starting of difficult loads and easy system extension

- POWER BOOST static power reserve with up to 1.25 times the nominal current permanently



**SFB**  
TECHNOLOGY



### QUINT DC/DC converters

High degree of flexibility thanks to wide input voltage ranges, e.g., for railway applications or power generation.

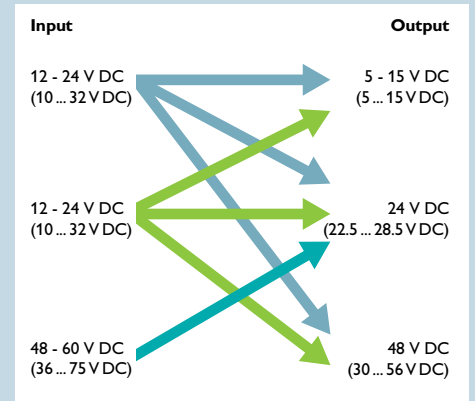
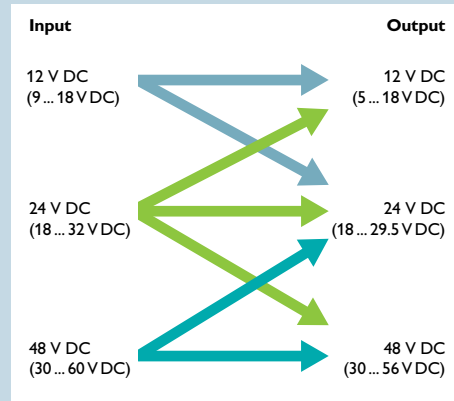
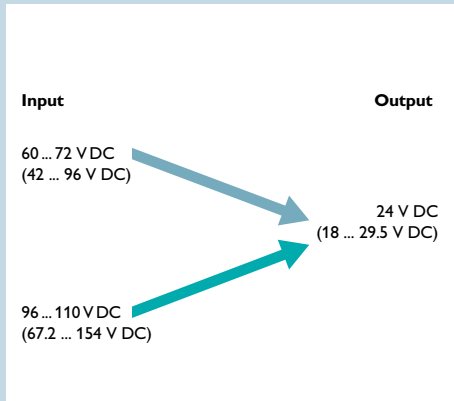
### QUINT DC/DC converters

All common input and output voltages in performance classes up to 480 W for all industries as well as devices with approvals for the process industry.

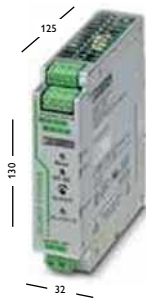
### MINI DC/DC converters

All common input and output voltages in performance classes up to 24 W for measurement and control technology.

### Voltage levels



**Input: 1-phase, 18 ... 32 V DC**



**24 DC / 24 DC / 5 A**

**QUINT-PS/24DC/24DC/5**  
2320034

**24 DC / 12 DC / 8 A**

**QUINT-PS/24DC/12DC/8**  
2320115



**24 DC / 24 DC / 10 A**

**QUINT-PS/24DC/24DC/10**  
2320092

**24 DC / 48 DC / 5 A**

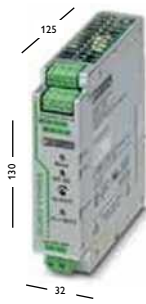
**QUINT-PS/24DC/48DC/5**  
2320128



**24 DC / 24 DC / 20 A**

**QUINT-PS/24DC/24DC/20**  
2320102

**Input: 1-phase, 9 ... 18 V DC**



**12 DC / 24 DC / 5 A**

**QUINT-PS/12DC/24DC/5**  
2320131

**12 DC / 12 DC / 8 A**

**QUINT-PS/12DC/12DC/8**  
2905007

**Input: 1-phase, 30 ... 60 V DC**



**48 DC / 24 DC / 5 A**

**QUINT-PS/48DC/24DC/5**  
2320144

**Input: 1-phase, 30 ... 60 V DC**



**48 DC / 48 DC / 5 A**

**QUINT-PS/48DC/48DC/5**  
2905008

**Input: 1-phase, 42 ... 96 V DC**



**60 ... 72 DC / 24 DC / 10 A**

**QUINT-PS/60-72DC/24DC/10**  
2905009

**Input: 1-phase, 67.2 ... 154 V DC**



**96 ... 110 DC / 24 DC / 10 A**

**QUINT-PS/96-110DC/24DC/10**  
2905010

# QUINT DC/DC converters, coated

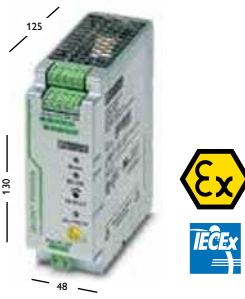


Input: 1-phase, 18 ... 32 V DC



**24 V / 24 V / 5 A**

**QUINT-PS/24DC/24DC/5/CO**  
2320542



**24 V / 24 V / 10 A**

**QUINT-PS/24DC/24DC/10/CO**  
2320555



**24 V / 24 V / 20 A**

**QUINT-PS/24DC/24DC/20/CO**  
2320568

For details on protective coating, see page 11.

Input: 1-phase, 42 ... 96 V DC



**60 ... 72 DC / 24 DC / 10 A**

**QUINT-PS/60-72DC/24DC/10/CO**  
2905011

Input: 1-phase, 67.2 ... 154 V DC

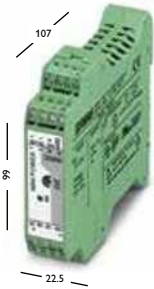


**96 ... 110 DC / 24 DC / 10 A**

**QUINT-PS/96-110DC/24DC/10/CO**  
2905012

## MINI DC/DC converters

Input: 1-phase, 10 ... 32 V DC, 36 ... 75 V DC



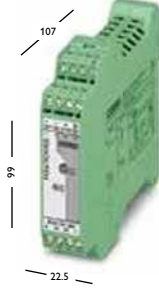
**12 ... 24 DC / 24 DC / 1 A**

**MINI-PS-12-24DC/24DC/1**  
2866284



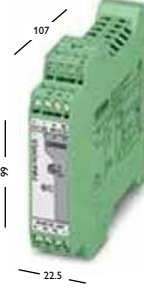
**48 ... 60 DC / 24 DC / 1 A**

**MINI-PS-48-60DC/24DC/1**  
2866271



**12 ... 24 DC / 5 ... 15 DC / 2 A**

**MINI-PS-12-24DC/5-15DC/2**  
2320018

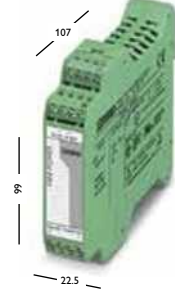


**12 ... 24 DC / 48 DC / 0.7 A**

**MINI-PS-12-24DC/48DC/0.7**  
2320021

## Accessories

Input: 1-phase, 10 ... 42 V AC



**10 ... 42 V AC / 15 ... 60 V DC / 3 A**

**MINI-PS-10-42AC/15-60DC/3**  
2320199

- AC power terminal
- AC voltage of a transformer is rectified and filtered

# Power supplies for frequency inverters

These power supplies are specifically designed for connection to frequency inverters. In the event of mains failure, the DC intermediate circuit voltage of the inverter continues to supply all connected 24 V loads without interruption.

## Your advantages

### Compact buffer solution

- Maintenance-free buffer solution: controlled machine stop in the event of mains failure by using the existing capacity in the frequency inverter
- Compact solution in one housing: parallel operation on two-phase AC mains and a DC intermediate circuit

### Fast tripping of standard circuit breakers

- Dynamic power reserve with SFB technology with 120 A for 20 ms (for details on SFB technology, see pages 6/7)

### Preventive function monitoring

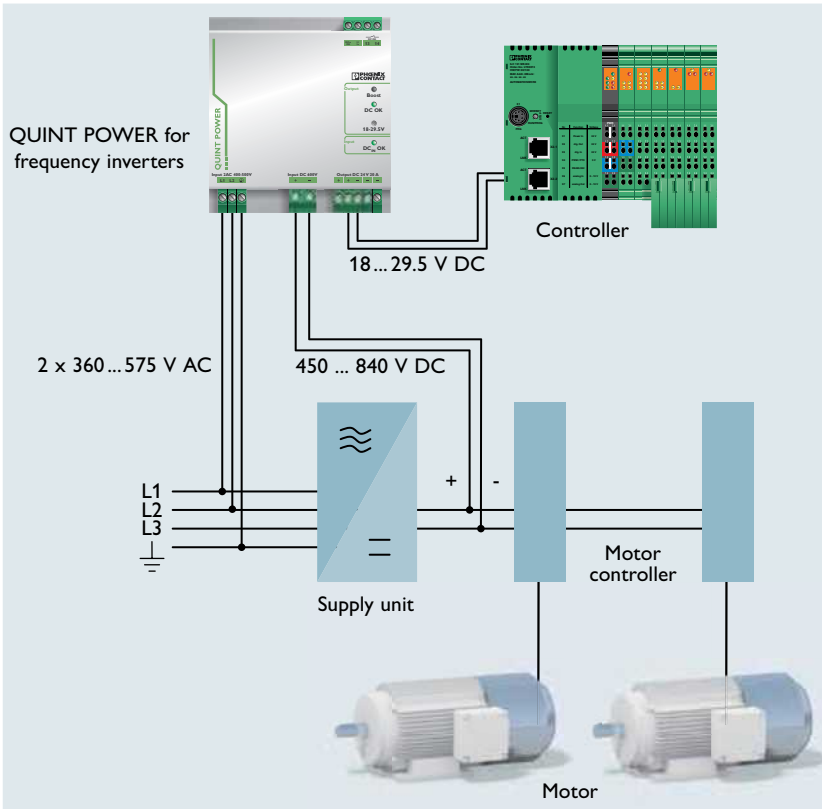
- Indicates critical operating states before errors occur, thanks to permanent monitoring of the output voltage and output current
- Remote monitoring using active switching output and floating relay contact

### Reliable starting of difficult loads and easy system extension

- POWER BOOST static power reserve supplies 26 A permanently

**SFB**  
TECHNOLOGY





QUINT POWER is connected to two outer conductors of the three-phase system and to a DC voltage. This can be the DC intermediate circuit voltage of a frequency inverter or, as in this example, a supply unit. In the event of mains failure, the controller continues to be supplied by using the kinetic energy of the motors. This enables a controlled machine stop. Quick and error-free restart of the machine is therefore ensured when the supply voltage is restored.

## TRIO POWER, 1 DC

Input: 450 VDC ... 840 VDC



24 V / 20 A

TRIO-PS/600DC/24DC/20  
2866530

## QUINT POWER, 2 AC / 1 DC



Input: 2 x 360...575 V AC, 450 ... 840 V DC




24 V / 20 A

QUINT-PS/2AC/1DC/24DC/20  
2320830

# Active redundancy module for superior system availability thanks to ACB technology

The ACB (auto current balancing) technology of the QUINT ORING modules doubles the service life of redundantly operated power supplies by utilizing both power supply units to an equal degree. The load current is automatically distributed symmetrically.

Two QUINT POWER power supplies combined with QUINT ORING limit the voltage to a maximum of 32 V DC even in the event of two faults. In this way, loads are reliably protected against permanent surge voltages and dangerous states.



**50%**  
**power**

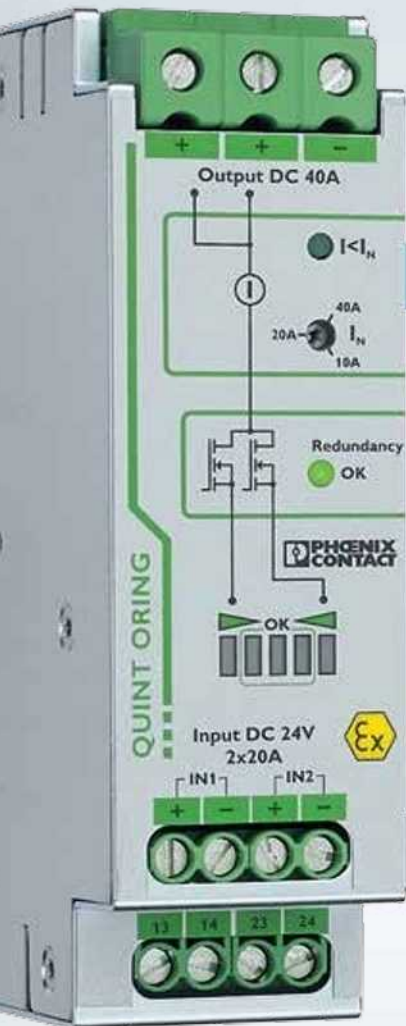
**ACB**  
TECHNOLOGY

## **ACB technology doubles the service life**

In applications with the highest demands regarding operational reliability, redundant power supply solutions are implemented to ensure that the failure of a power supply unit does not result in system downtime.

As a result of asymmetries, the load is often supplied by one power supply unit, while the other runs in no-load operation. This results in a thermal load on the working power supply unit and therefore rapid aging. If the power supply unit is operated at half the nominal current, it remains significantly cooler.

The ACB technology of the QUINT ORING modules ensures symmetrical loading of the power supplies and thereby up to double the service life of the redundant system.



# 50% power



## Your advantages

### Preventive function monitoring

- Permanent monitoring of the input voltage, output current, and decoupling section

### Consistent redundancy

- Redundant wiring up to the load with two positive output terminal blocks

### Double the service life

- Thanks to even load distribution

### 70% energy saving

- Decoupling is implemented with MOSFETs instead of diodes

### OVP (Over Voltage Protection)

- Surge voltages are limited to 32 V
- Doubly failsafe with:  
2 x QUINT POWER and 1 x QUINT ORING

### Robust design

- Protective coating for extreme requirements
- Approvals for use in potentially explosive areas

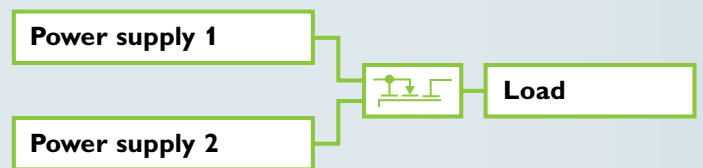
# Decoupling, monitoring, and controlling redundancy modules

A redundant power supply system is the result of the parallel connection of two power supply units. In order to increase system availability, the power supplies must be decoupled and the redundancy must be monitored. The following are ideal solutions:

- Decoupling, monitoring, and control
- Decoupling and monitoring
- Decoupling

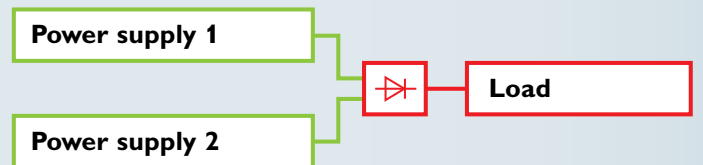
## Decoupling, monitoring, and control

Decoupling with active redundancy module + monitoring of the power supply unit voltages, the wiring, decoupling, and the load current.



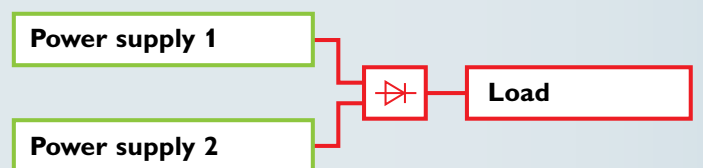
## Decoupling and monitoring

Decoupling with redundancy module + monitoring of the power supply unit voltages and the wiring.



## Decoupling

Decoupling with diode.

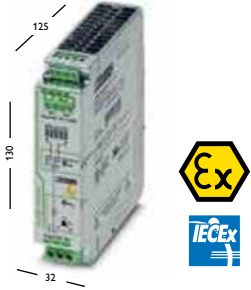


— Monitored  
— Not monitored

## QUINT ORING

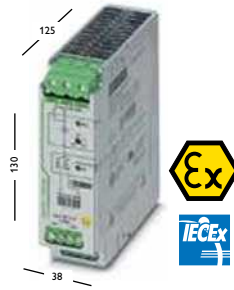


Input: 18 ... 28 V DC



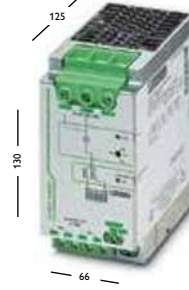
**24 V / 2 x 10 A / 1 x 20 A**

**QUINT-ORING/24DC/2x10/1x20**  
2320173



**24 V / 2 x 20 A / 1 x 40 A**

**QUINT-ORING/24DC/2x20/1x40**  
2320186



**24 V / 2 x 40 A / 1 x 80 A**

**QUINT-ORING/24DC/2x40/1x80**  
2902879

## TRIO DIODE

Input: 10 ... 30 V DC, 30 ... 56 V DC



**12 ... 24 V / 2 x 10 A / 1 x 20 A**

**TRIO-DIODE/12-24DC/2x10/1x20**  
2866514

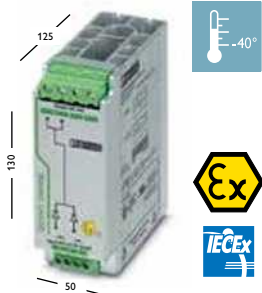


**48 V / 2 x 10 A / 1 x 20 A**

**TRIO-DIODE/48DC/2x10/1x20**  
2866527

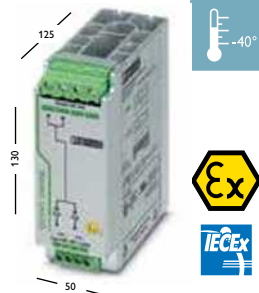
## QUINT DIODE

Input: 10 ... 30 V DC, 30 ... 56 V DC



**12 ... 24 V / 2 x 20 A / 1 x 40 A**

**QUINT-DIODE/12-24DC/2x20/1x40**  
2320157



**48 V / 2 x 20 A / 1 x 40 A**

**QUINT-DIODE/48DC/2x20/1x40**  
2320160

## UNO DIODE

Input: 4.5 V ... 30 V DC



**5 ... 24 V DC**

**UNO-DIODE/5-24DC/2x10/1x20**  
2905489

## STEP DIODE

Input: 4.5 V ... 30 V DC



**5 ... 24 V / 2 x 5 A / 1 x 10 A**

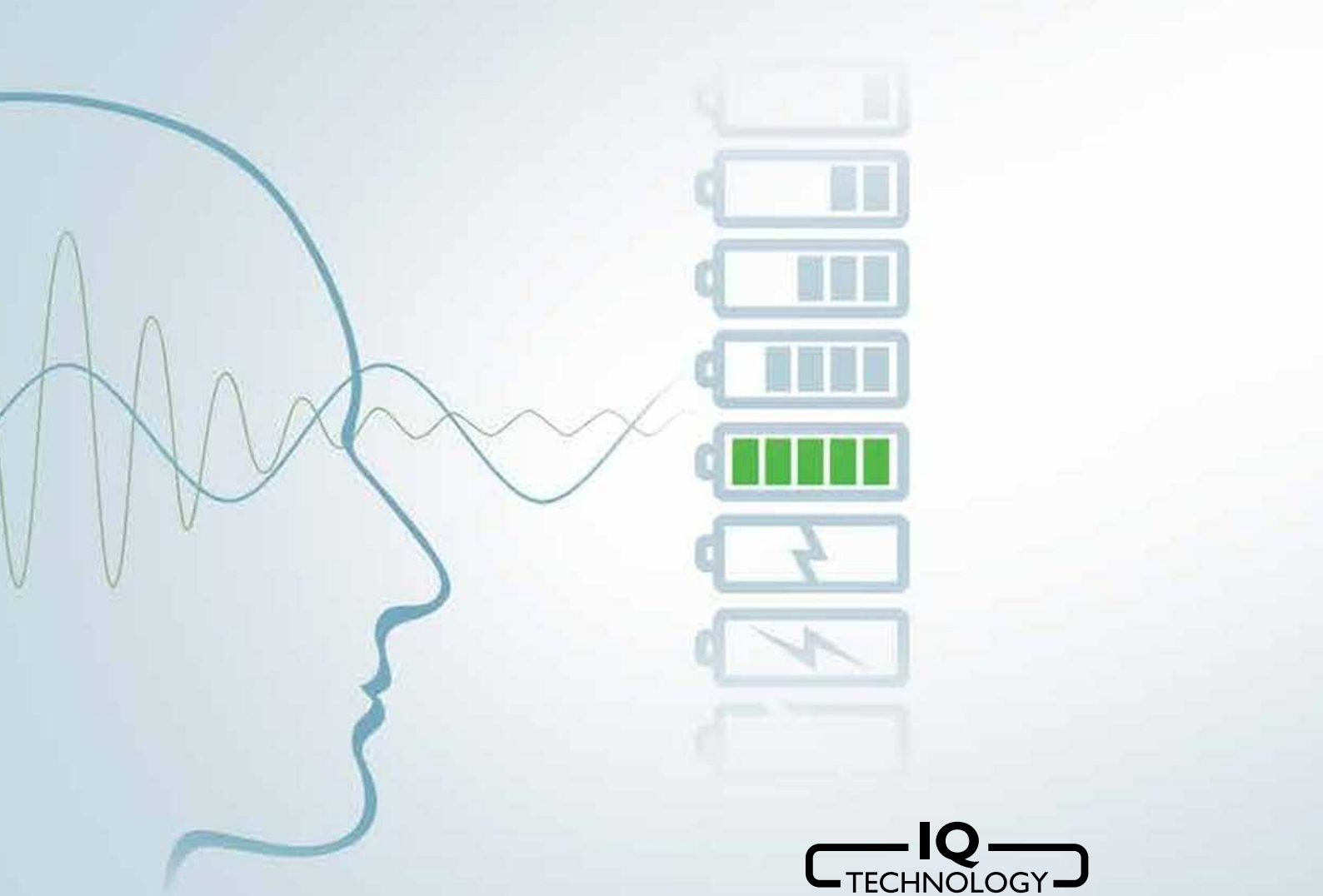
**STEP-DIODE/5-24DC/2x5/1x10**  
2868606

# Intelligent UPS system for superior system availability thanks to IQ technology

Uninterruptible power supplies (UPS) continue to deliver power even in the event of mains failure. With our IQ technology, you are one step ahead:

- You know the state of charge and remaining runtime of your power storage
- You are warned about failures at an early stage and have time to prevent them
- You can maximize the service life of the power storage
- You can transfer all relevant information to your computer and higher-level controllers





### Intelligence for superior system availability

**Task:** an industrial PC must be continuously supplied with 24 V DC.

**Previous solution:** the UPS with 3.4 Ah buffers 24 V DC/5 A for 20 minutes under optimum conditions. Can the power storage actually bridge this time? State of charge, performance, and remaining runtime of the power storage are unknown.

**Solution with QUINT UPS:** the intelligent UPS determines all relevant power storage states. This ensures the transparency required to guarantee the stability of the supply and optimum use of the power storage at all times.

The intelligent battery management detects the current state of charge of the connected power storage and uses this to calculate the remaining runtime. The QUINT UPS also indicates whether the buffer time is actually 20 minutes. As soon as an adjustable threshold value is reached, a warning message is sent via the floating relay contact, the software or directly to higher-level controllers. The IPC continues working for as long as possible and is shut down before the battery voltage runs out.

# Intelligence in any combination

Create your own individual solution – tailored to your application.

## 1. Choose your power supply:

Compact QUINT POWER power supplies ensure superior system availability.

## 2. Choose your UPS module:

The intelligent QUINT UPS actively informs you when necessary.

## 3. Choose your power storage:

- UPS-CAP for maximum service life
- UPS-BAT/LI-ION for long service life with long buffer times
- UPS-BAT/VRLA and VRLA-WTR for maximum buffer times



Power supply



STEP UPS	MINI UPS	UNO UPS	TRIO UPS	QUINT BUFFER	QUINT UPS	
						• IQ technology
						• Flexible thanks to various power storage technologies
						• Communication-capable
			•			• Configurable
•		•		•	•	• UPS modules with integrated power storage
	•		•			• UPS modules with integrated power supply



UPS module



Power storage



The IQ technology is intuitive and provides you with information as soon as it is required.

**Intelligent battery management**

**SOC** (state of charge) – current state of charge and remaining runtime of the power storage.

**SOH** (state of health) – remaining life expectancy of the power storage, warns of failure at an early stage.

**Intelligent battery control**

Detects the connected battery type automatically and maximizes the remaining service life of the power storage by means of an optimally adapted charging characteristic.

**Intelligent charging**

Adapts the charging current, thereby ensuring the fastest possible recharging and availability.

**Data port**

Used for communication between the UPS module and PC/higher-level controller.



# UPS modules for DC applications

The UPS module for 24 V DC with output currents ranging from 5 to 40 A allows you to create a custom solution combining a power supply, UPS module, and power storage.

## Your advantages

### Optimum use of the buffer time and preventive monitoring of the power storage

- Detects the current state of charge of the power storage and calculates the remaining runtime
- Calculates the current life expectancy of the power storage

### Rapid battery charging

- Adaptive current management charges the battery twice as fast as before, while simultaneously providing sufficient energy for the loads

### Comprehensive signaling and parameterization

- Floating relay contacts
- Data port
- Parameterization with memory module

### Substantial power reserve

- For mains and battery operation
- POWER BOOST static power reserve
- Dynamic power reserve with SFB (selective fuse breaking) technology

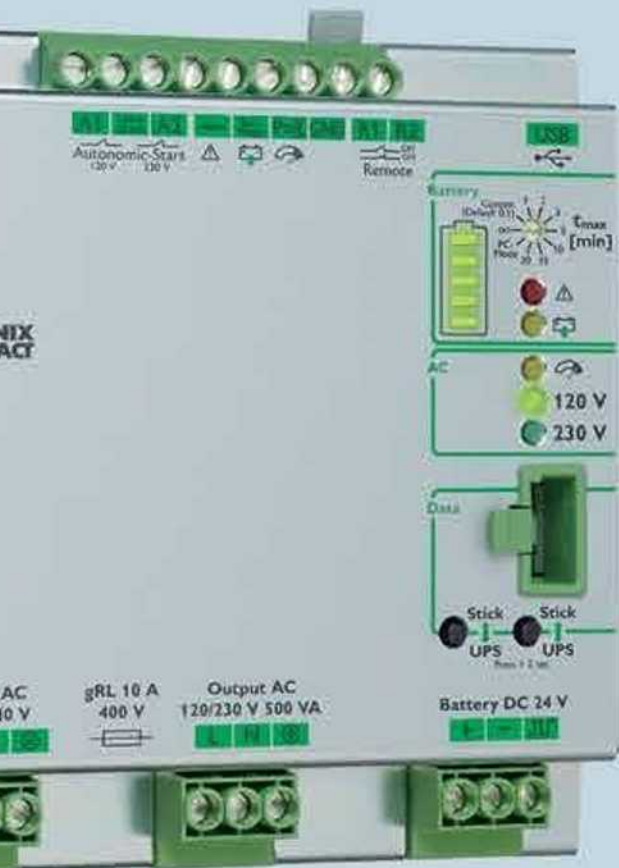
IQ  
TECHNOLOGY

SFB  
TECHNOLOGY



Power supply    **UPS module**    Power storage

# UPS module for AC applications



The UPS module for 120 V AC/230 V AC delivers a pure sine curve at the output. For 400 W/500 VA of power, only one power storage is required, the power supply is already integrated.

## Your advantages

### Optimum use of the buffer time and preventive monitoring of the power storage

- Detects the current state of charge of the power storage and calculates the remaining runtime
- Calculates the current life expectancy of the power storage

### Worldwide use

- Input voltages from 102 ... 264 V AC
- Pure sine curve: the sine generated in battery operation is synchronous with the mains previously used for supply
- In the event of mains failure, the output is automatically supplied with 120 V AC/60 Hz or 230 V AC/50 Hz
- Manual voltage pre-selection possible

### Maximum efficiency

- Offline operation: 98% efficiency with charged power storage

### Comprehensive signaling and parameterization

- Switching outputs
- USB interface
- Data port
- Parameterization with memory module

### Simplified startup

- The UPS can be switched on without a power supply network (isolated operation)



Power supply   UPS module   Power storage

# QUINT UPS

## power storage

You can always find the ideal solution for superior system availability with the modular system for uninterruptible power supplies.

The various storage media feature a wide range of different properties: long service life or very long buffer time, no maintenance or use at extreme ambient temperatures.

Whatever your requirements, we offer the ideal power storage.

Type	Buffer time (typical)	Temperature
UPS-CAP...	< 5 min.	-40 ... +60°C
UPS-BAT/LI-ION...	> 40 min.	-20 ... +58°C
UPS-BAT/VRLA-WTR...	> 5 h	-25 ... +60°C
UPS-BAT/VRLA...	> 8 h	0 ... +40°C



### UPS-BAT/VRLA... (Valve Regulated Lead Acid)

- Maximum buffer times
- Lead AGM (Absorbed Glass Mat) technology



### UPS-BAT/VRLA-WTR... (Valve Regulated Lead Acid/ Wide Temperature Range)

- Maximum buffer times at extreme temperatures
- Pure lead AGM (Absorbed Glass Mat) technology

## Your advantages

### Fast installation

- Automatic detection of the power storage by QUINT UPS
- Tool-free replacement during operation

### Maximum availability

- Constant communication with QUINT UPS for continuous monitoring and intelligent management

### Extremely long service life

- Optimum charging characteristic according to the technology and ambient conditions

### Immediate availability

- All power storage devices leave our warehouse fully charged

Service life at 20°C	Service life at 50°C	Charging cycles at 20°C	Weight (standardized)
> 20 years	8 years	> 500,000	0.4 kg
15 years	2 years	7000	0.45 kg
12 years	1.5 years	300	1.3 kg
6 ... 9 years	1 year	250	1 kg



### UPS-BAT/LI-ION...

- Long service life with long buffer times
- Lithium-ion technology

### UPS-CAP (Capacitor)

- Maximum service life
- Maintenance-free double-layer capacitors



Power supply



UPS module



Power storage

# Selection guide for QUINT UPS and CAP, LI-ION, VRLA-WTR

## Buffer times for DC UPS modules



Select your **UPS-BAT** and **UPS-CAP** for 24 V DC applications here.

Example: 20 A needs to be buffered for 6 minutes



→ QUINT-DC-UPS/24DC/20A and UPS-BAT/LI-ION/24DC/120WH

↓

Load current	Buffer time																														
	Seconds							Minutes							Hours																
	0.2	0.4	1	2	8	16	30	1	2	3	5	6	7	8	9	10	20	30	40	45	50	1	2	3	5	8	10	15	20	40	
1 A	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green	
2 A	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green
3 A	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green
5 A	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green
7 A	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green
10 A	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green
15 A	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green
20 A	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green
25 A	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green
30 A	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green
35 A	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green
40 A	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green

→

## Buffer times for AC UPS module



Select your **UPS-BAT** and **UPS-CAP** for 120 V AC/230 V AC applications here.

Example: 125 W needs to be buffered for one hour



→ QUINT-UPS/1AC/1AC/500VA and UPS-BAT/VRLA-WTR/24DC/13AH

↓

Power	Buffer time																														
	Seconds							Minutes							Hours																
	0.2	0.4	2	8	15	20	40	1	2	3	5	6	7	8	9	10	20	30	40	45	50	1	2	3	5	8	10	15	20		
15 W	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green
35 W	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green
55 W	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green
90 W	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green
125 W	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green
180 W	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green
275 W	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green
400 W	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green

→

1+1 ... Two power storage devices of the same capacity are required in this case.  
The data is based on an ambient temperature of 20°C.

## DC UPS modules

## Dual output



**24 V / 5 A**

**QUINT-UPS/  
24DC/24DC/5**  
2320212

Recommended:  
UPS-CAP  
UPS-BAT/VRLA-WTR  
UPS-BAT/LI-ION



**24 V / 10 A**

**QUINT-UPS/  
24DC/24DC/10**  
2320225

Recommended:  
UPS-CAP  
UPS-BAT/VRLA-WTR  
UPS-BAT/LI-ION



**24 V / 20 A**

**QUINT-UPS/  
24DC/24DC/20**  
2320238

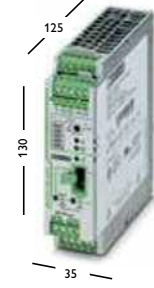
Recommended:  
UPS-CAP 20 A  
UPS-BAT/VRLA-WTR  
UPS-BAT/LI-ION



**24 V / 40 A**

**QUINT-UPS/  
24DC/24DC/40**  
2320241

Recommended:  
UPS-BAT/VRLA-WTR



**12 V / 5 A, 24 V / 10 A**

**QUINT-UPS/  
24DC/12DC/5/24DC/10**  
2320461

Recommended:  
UPS-CAP  
UPS-BAT/VRLA-WTR  
UPS-BAT/LI-ION

## AC UPS module



**400 W / 500 VA**

**QUINT-UPS/  
1AC/1AC/500VA**  
2320270

Recommended:  
UPS-CAP 20 A  
UPS-BAT/VRLA-WTR  
UPS-BAT/LI-ION

## UPS-CAP

## UPS-BAT/LI-ION

## UPS-BAT/VRLA-WTR



**10 A / 10 kj**

**UPS-CAP/  
24DC/10A/10KJ**  
2320377



**20 A / 20 kj**

**UPS-CAP/  
24DC/20A/20KJ**  
2320380



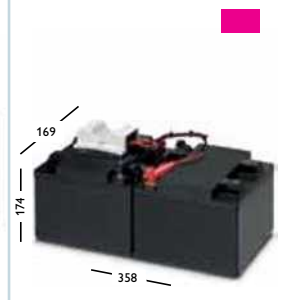
**120 WH**

**UPS-BAT/LI-ION/  
24DC/120WH**  
2320351



**13 Ah**

**UPS-BAT/VRLA-WTR/  
24DC/13AH**  
2320416



**26 Ah**

**UPS-BAT/VRLA-WTR/  
24DC/26AH**  
2320429

# Selection guide for QUINT UPS and VRLA

## Buffer times for DC UPS modules



Select your **UPS-BAT** for 24 V DC applications here.

Example: 20 A needs to be buffered for 10 minutes



→ QUINT-DC-UPS/24DC/20A and UPS-BAT/VRLA/24DC/7.2AH

↓

Load current	Buffer time															Hours							
	Seconds				Minutes											1	2	3	5	8			
	0.2	0.4	2	8	2	3	5	6	7	8	9	10	20	30	40	45	50	1	2	3	5	8	
1 A	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Yellow	Orange	Red	Red
2 A	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Yellow	Orange	Red	Red
3 A	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Yellow	Orange	Red	Red
5 A	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Yellow	Orange	Red	Red
7 A	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Yellow	Orange	Red	Red
10 A	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Yellow	Orange	Red	Red
15 A	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Red	Red
20 A	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Red	Red
25 A	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Red	Red
30 A	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Red	Red
35 A	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Red	Red
40 A	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Red	Red

→

## Buffer times for AC UPS module



Select your **UPS-BAT** for 120 V AC/230 V AC applications here.

Example: 125 W needs to be buffered for one hour



→ QUINT-UPS/1AC/1AC/500VA and UPS-BAT/VRLA/24DC/12AH

↓

Power	Buffer time															Hours							
	Seconds				Minutes											1	2	3	5	8			
	0.2	0.4	2	8	2	3	5	6	7	8	9	10	20	30	40	45	50	1	2	3	5	8	
15 W	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Red	Red
35 W	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Red	Red
55 W	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Red	Red
90 W	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Red	Red
125 W	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Red	Red
180 W	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Red	Red
275 W	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Red	Red
400 W	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Red	Red

→

1+1 ... Two power storage devices of the same capacity are required in this case.  
The data is based on an ambient temperature of 20°C.

## DC UPS modules

## Dual output



**24 V / 5 A**

**QUINT-UPS/  
24DC/24DC/5**  
2320212

Recommended:  
UPS-CAP  
UPS-BAT/VRLA-WTR  
UPS-BAT/LI-ION

**24 V / 10 A**

**QUINT-UPS/  
24DC/24DC/10**  
2320225

Recommended:  
UPS-CAP  
UPS-BAT/VRLA-WTR  
UPS-BAT/LI-ION

**24 V / 20 A**

**QUINT-UPS/  
24DC/24DC/20**  
2320238

Recommended:  
UPS-CAP 20 A  
UPS-BAT/VRLA-WTR  
UPS-BAT/LI-ION

**24 V / 40 A**

**QUINT-UPS/  
24DC/24DC/40**  
2320241

Recommended:  
UPS-BAT/VRLA-WTR

**12 V / 5 A, 24 V / 10 A**

**QUINT-UPS/  
24DC/12DC/5/24DC/10**  
2320461

Recommended:  
UPS-CAP  
UPS-BAT/VRLA-WTR  
UPS-BAT/LI-ION

## AC UPS module

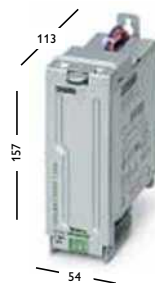


**400 W / 500 VA**

**QUINT-UPS/  
1AC/1AC/500VA**  
2320270

Recommended:  
UPS-CAP 20 A  
UPS-BAT/VRLA-WTR  
UPS-BAT/LI-ION

## UPS-BAT/VRLA power storage devices



**1.3 Ah**

**UPS-BAT/  
VRLA/24DC/1.3AH**  
2320296



**3.4 Ah**

**UPS-BAT/  
VRLA/24DC/3.4AH**  
2320306



**7.2 Ah**

**UPS-BAT/  
VRLA/24DC/7.2AH**  
2320319



**12 Ah**

**UPS-BAT/  
VRLA/24DC/12AH**  
2320322



**38 Ah**

**UPS-BAT/  
VRLA/24DC/38AH**  
2320335

# QUINT UPS

## Signaling and configuration

Monitor and configure your UPS system using the UPS-CONF configuration and management software.

For quick startup, important information is provided in the poster-sized brief instructions. Pictures and screenshots aid hardware and software installation and help explain the method of operation of UPS-CONF.

The quick start guide is available free of charge on the Phoenix Contact website under “Downloads” for the QUINT UPS products.



### Signaling via contacts

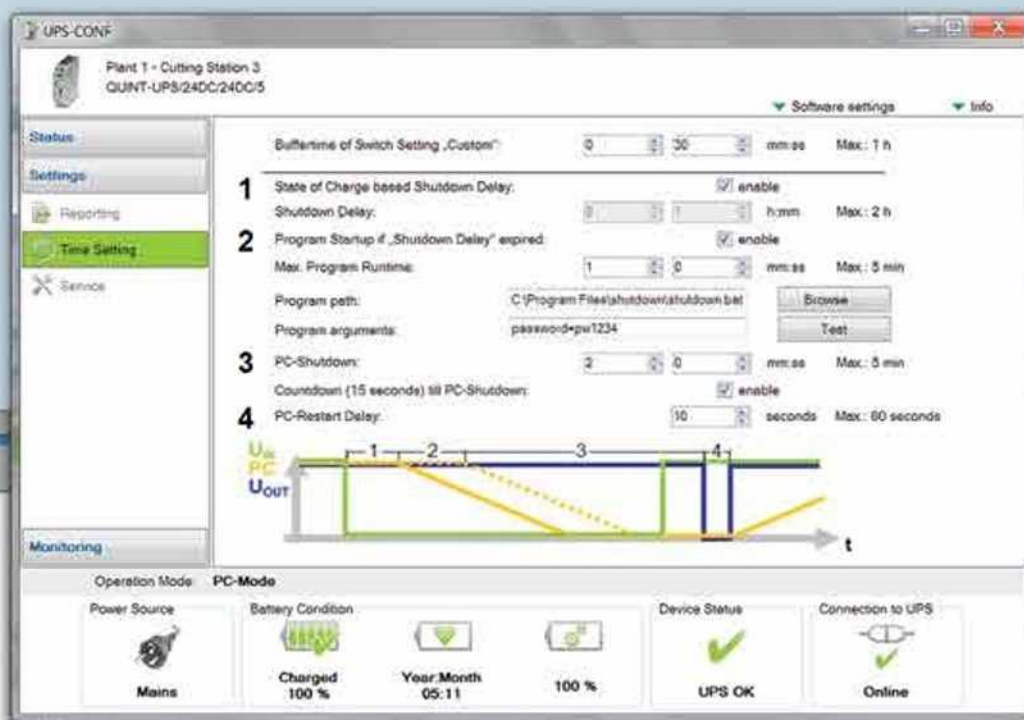
LEDs and floating relay contacts provide function monitoring. QUINT UPS-IQ supplies the following information via the wired contacts:

- The load is being supplied by the power storage
- The power storage is being charged
- An alarm is present



### USB interface is ideal for:

- Monitoring and configuration with UPS-CONF
- Safe shutdown of industrial PCs with optimum utilization of the power storage



### Configurable

- Flexible adaptation of QUINT UPS behavior to individual requirements

### Preventative function monitoring

- All relevant operating parameters are displayed graphically
- Important messages appear in the foreground

### Integrated data recorder

- Log file archives events, e.g., when and for how long QUINT UPS has bridged mains failures

## Accessories



### Software

**UPS-CONF**  
2320403

- Available free of charge on the Phoenix Contact website under "Downloads" for the QUINT-UPS/... products



### USB data cable

**IFS-USB-DATACABLE**  
2320500

- For communication between UPS module and UPS-CONF
- Length: 3 m



### Memory module

**IFS-CONFSTICK**  
2986122

- For saving and transferring configured values to other QUINT UPS



### Memory module

**IFS-CONFSTICK-L**  
2901103

- For saving and transferring configured values to other QUINT UPS

# QUINT UPS Communication

Use the available data cables to integrate the UPS module into your application. You can therefore benefit from all the advantages of IQ technology and be kept informed of the state of your UPS solution.

The information provided by QUINT UPS can, for example, be forwarded to higher-level controllers via Ethernet or be implemented directly in control solutions from Phoenix Contact.






*The IFS-MINI-DIN DATACABLE is suitable for direct communication with the 100 series higher-level ILC (Inline controller).*





## Accessories

		
<p style="text-align: center;"><b>RS-232 data cable</b> <b>IFS-RS232-DATACABLE</b> 2320490</p>	<p style="text-align: center;"><b>Open end data cable</b> <b>IFS-OPEN-END-DATACABLE</b> 2320450</p>	<p style="text-align: center;"><b>MINI DIN data cable</b> <b>IFS-MINI-DIN-DATACABLE</b> 2320487</p>
<ul style="list-style-type: none"> <li>• Modbus communication with RS-232 interface</li> <li>• COM server from Phoenix Contact for Ethernet communication</li> <li>• Address higher-level controllers such as Inline controllers (ILCs) or Remote Field Controllers (RFCs) directly</li> <li>• Use the Inline controller from Phoenix Contact as a gateway and access other communication protocols</li> <li>• Length: 2 m</li> </ul>	<ul style="list-style-type: none"> <li>• Open cable for flexible communication</li> <li>• Length: 2 m</li> </ul>	<ul style="list-style-type: none"> <li>• Direct communication with the Inline controller (ILC) from the Phoenix Contact Inline system (100 series)</li> <li>• Length: 2 m</li> </ul>

**Do you use PC Worx software?**

Then use the library with function blocks for the further processing of information communicated via data cables. It is available free of charge on the Phoenix Contact website under “Downloads” for the QUINT-UPS/... products.

# UPS modules with integrated power storage

Particularly space saving and easy to retrofit, the UPS module and power storage are combined in the same housing. It's just a case of connecting a power supply upstream and the reliable UPS solution is complete.





Power supply






UPS module



Power storage

UNO UPS	STEP UPS
<b>Input:</b> 1-phase, 23 ... 30 V DC	<b>Input:</b> 1-phase, 24 V: 22.5 ... 29.5 VDC, 12 V: 10 ... 16.5 VDC
	
<b>24 V / 60 W</b>	<b>24 DC / 24 DC / 3 A</b>
<b>UNO-UPS/24DC/24DC/60</b> 2905907	<b>STEP-UPS/24DC/24DC/3</b> 2868703
<ul style="list-style-type: none"> <li>Power storage with lead AGM technology</li> </ul>	<ul style="list-style-type: none"> <li>LiPo-based power storage</li> </ul>
	<b>12 DC / 12 DC / 4 A</b> <span style="background-color: #0070C0; color: white; padding: 2px;">2x</span>
	<b>STEP-UPS/12DC/12DC/4</b> 2868693

QUINT UPS		QUINT BUFFER
<b>Input:</b> 1-phase, 18 ... 30 V DC		<b>Input:</b> 1-phase, 18 ... 30 V DC
		
<b>24 DC / 5 A / 1.3 Ah</b>	<b>24 DC / 10 A / 3.4 Ah</b>	<b>24 V / 40 A</b>
<b>QUINT-UPS/24DC/24DC/5/1.3AH</b> 2320254	<b>QUINT-UPS/24DC/24DC/10/3.4AH</b> 2320267	<b>QUINT-BUFFER/24DC/24DC/40</b> 2320393
<ul style="list-style-type: none"> <li>Power storage with lead AGM technology</li> <li>Integrated temperature sensor optimizes load currents and increases the service life</li> <li>Function monitoring via LED and floating relay contact</li> </ul>		<ul style="list-style-type: none"> <li>Capacitor-based power storage</li> <li>Maintenance-free</li> </ul>



## Buffer times for UNO UPS and STEP UPS

Select your UNO UPS here.

Load current	Buffer time																			
	Seconds						Minutes													
	0.2	0.4	1	2	8	16	30	1	2	3	5	6	7	8	9	10	20	30	40	45
0.5 A																				
1 A																				
1.5 A																				
2 A																				
2.5 A																				

Select your STEP UPS here.  
With the 12 V version, buffer times are double those of the 24 V version.

Load current	Buffer time																											
	Seconds												Minutes										Hours					
	0.2	0.4	1	2	8	16	30	1	2	3	5	6	7	8	9	10	15	20	25	30	40	45	50	1	2	3		
0.5 A																												
1 A																												
2 A																												
3 A																												

## Buffer times for QUINT UPS and QUINT BUFFER

Select your UPS solution here.  
Example: 5 A needs to be buffered for 20 minutes

- 
- QUINT-UPS/24DC/24DC/10A/3.4AH

Load current	Buffer time																											
	Seconds												Minutes										Hours					
	0.2	0.4	1	2	8	16	30	1	2	3	5	6	7	8	9	10	15	20	25	30	40	45	50	1	2	3		
0.5 A																												
1 A																												
2 A																												
3 A																												
5 A																												
7 A																												
10 A																												
15 A																												
20 A																												
25 A																												
30 A																												
35 A																												
40 A																												

# UPS modules with integrated power supply

The UPS module and power supply are combined in the same housing in a particularly space-saving way. Only one power storage is required to complete the UPS system.

## MINI UPS

Power storage devices with lead AGM technology enable buffer times of up to 40 minutes under nominal load for output voltages of 24 or 12 V DC.

## TRIO UPS

Power storage devices with lead AGM technology buffer failures lasting up to 2 hours with 5 A load current.



Power supply



UPS module



Power storage

### MINI UPS + ...

**Input:** 1-phase,  
85 ... 264 V AC, 100 ... 350 V DC

**MINI-DC-UPS/24DC/2**  
2866640

Output: 24 V DC / 2 A

**MINI-DC-UPS/12DC/4**  
2866598

Output: 12 V DC / 4 A



### TRIO UPS + ...

**Input:** 1-phase,  
85 ... 264 V AC, 100 ... 350 V DC

**TRIO-UPS/1AC/24DC/5**  
2866611

#### Accessories

**UPS-CONF**  
2320403

Configuration software available for free on the Phoenix Contact website under "Downloads" for the TRIO UPS product

**IFS-USB-DATACABLE**  
2320500

Data cable for communication between UPS-CONF and TRIO UPS

**Memory modules**  
2986122 / 2901103

Memory module for saving and transferring configured values to other TRIO UPS



## Buffer times for MINI UPS and TRIO UPS

Select your **MINI-BAT** for MINI UPS and **QUINT-BAT** for TRIO UPS here.





Example: 2 A needs to be buffered for 20 minutes





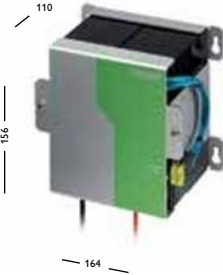

MINI-DC-UPS/24DC/2 and MINI-BAT/24DC/1.3AH

Load current	Minutes														Hours		
	2	3	5	6	7	8	9	10	20	30	40	45	50	1	2	3	
0.5 A																	
1 A																	
1.5 A																	
2 A																	
3 A																	
4 A																	
5 A																	

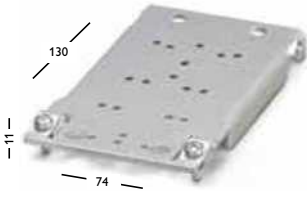

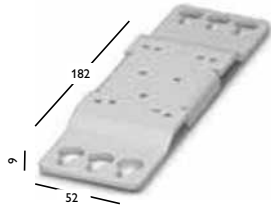
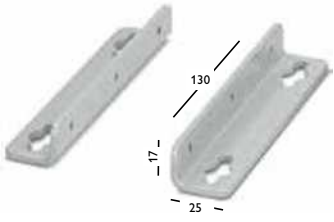
## ... MINI-BAT for MINI UPS

			
<b>24 V DC / 0.8 Ah</b>	<b>24 V DC / 1.3 Ah</b>	<b>12 V DC / 1.6 Ah</b>	<b>12 V DC / 2.6 Ah</b>
<b>MINI-BAT/24DC/0.8AH</b> 2866666	<b>MINI-BAT/24DC/1.3AH</b> 2866417	<b>MINI-BAT/12DC/1.6AH</b> 2866572	<b>MINI-BAT/12DC/2.6AH</b> 2866569




## ... QUINT-BAT for TRIO UPS

			
<b>24 V / 1.3 Ah</b>	<b>24 V / 3.4 Ah</b>	<b>24 V / 7.2 Ah</b>	<b>12 Ah</b>
<b>MINI-BAT/24DC/1.3AH</b> 2866417	<b>QUINT-BAT/24DC/3.4AH</b> 2866349	<b>QUINT-BAT/24DC/7.2AH</b> 2866352	<b>QUINT-BAT/24DC/12AH</b> 2866365


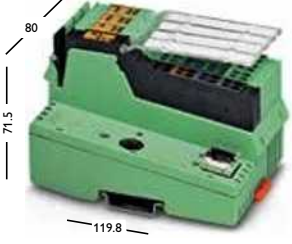
## Accessories for power supplies

Mounting on S7-300 rail		Mounting on level surfaces	
			
<b>QUINT-PS adapter S7/1</b>	<b>QUINT-PS adapter S7/2</b>	<b>Adapter UWA 182/52</b>	<b>Adapter UWA 130</b>
2938196	2938206	2938235	2901664
For: QUINT-PS/1AC/24DC/3.5, QUINT-PS/1AC/24DC/5, QUINT-PS/3AC/24DC/5	For: QUINT-PS/1AC/24DC/10, QUINT-PS/3AC/24DC/10, QUINT-PS/3AC/24DC/20	For TRIO-PS from 10 A, QUINT-PS, QUINT-DC-UPS, QUINT-BUFFER	For QUINT-PS/1AC/24DC/40, QUINT-UPS/1AC/1AC/500VA

## Accessories for uninterruptible power supplies

Power storage mounting		Fuses for power storage
		
<b>BATTERY MOUNTING KIT</b>	<b>BATTERY MOUNTING CASE</b>	<b>SI FORM C 15 A DIN 72581</b>
2320788	2320458	0913676
For: UPS-BAT/VRLA/24DC/38AH, UPS-BAT/VRLA-WTR/24DC/13AH, UPS-BAT/VRLA-WTR/24DC/26AH	For: UPS-BAT/VRLA/24DC/38AH, UPS-BAT/VRLA-WTR/24DC/13AH, UPS-BAT/VRLA-WTR/24DC/26AH	<b>SI FORM C 25 A DIN 72581</b>
		0913757
		<ul style="list-style-type: none"> <li>• Flat-type plug-in fuse</li> <li>• 15 A and 25 A nominal current</li> </ul>

## Ethernet communication

	
<b>FL COMSERVER UNI 232/422/485</b>	<b>ILC 130 ETH</b>
2313452	2988803
<ul style="list-style-type: none"> <li>• Integration of serial RS-232, RS-422, and RS-485 interfaces</li> <li>• For machine and system access via Ethernet network</li> </ul>	Inline compact controller with Ethernet interface for coupling to other controllers and systems

# Approvals

Order No.	CE	UL					CSA	Ship							EX		DeviceNet™	SEMI F47-0706 Compliance Certificate PQ Star	CB Scheme	Medical standard IEC 60601	Railway standard EN 50155, 50121-4	EAC	Startup at -40°C	Installation height
		UL Listed UL 508	UL/C-UL Listed UL 508	UL/C-UL Recognized UL 60950	UL Listed ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D	UL 1310 NEC Class 2	CSA 22.2 No 107.1-01	CSA 22.2 No 60950-1-07	GL - Germanischer Lloyd	ABS - American Bureau of Shipping	BV - Bureau Veritas	LR - Lloyd's Register	NK - Nippon Kaiji Kyokai	DNV - Det Norske Veritas	RINA	ATEX								
<b>QUINT POWER power supplies</b>																								
QUINT-PS/1AC/24DC/3.5	2866747	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	c
QUINT-PS/1AC/24DC/5	2866750	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	d
QUINT-PS/1AC/24DC/10	2866763	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	c
QUINT-PS/1AC/24DC/20	2866776	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	d
QUINT-PS/1AC/24DC/40	2866789	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	b
QUINT-PS/1AC/12DC/15	2866718	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	c
QUINT-PS/1AC/12DC/20	2866721	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	d
QUINT-PS/1AC/48DC/5	2866679	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	c
QUINT-PS/1AC/48DC/10	2866682	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	d
QUINT-PS/1AC/48DC/20	2866695	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	d
QUINT-PS/3AC/24DC/5	2866734	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	c
QUINT-PS/3AC/24DC/10	2866705	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	b
QUINT-PS/3AC/24DC/20	2866792	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	c
QUINT-PS/3AC/24DC/40	2866802	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	b
QUINT-PS/3AC/48DC/20	2320827	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	b
QUINT-PS/1AC/24DC/5/CO	2320908	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	d
QUINT-PS/1AC/24DC/10/CO	2320911	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	c
QUINT-PS/1AC/24DC/20/CO	2320898	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	d
QUINT-PS/3AC/24DC/20/CO	2320924	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	c
<b>TRIO POWER power supplies</b>																								
TRIO-PS-2G/1AC/24DC/3C2LPS	2902147	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
TRIO-PS-2G/1AC/24DC/5	2903148	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
TRIO-PS-2G/1AC/24DC/10	2903149	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
TRIO-PS-2G/1AC/24DC/20	2903151	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	d
TRIO-PS/1AC/12DC/5	2866475	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	d
TRIO-PS/1AC/12DC/10	2866488	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	d
TRIO-PS/1AC/48DC/5	2866491	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	a
TRIO-PS/1AC/48DC/10	2866501	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	b
TRIO-PS-2G/3AC/24DC/5	2903148	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
TRIO-PS-2G/3AC/24DC/10	2903148	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
TRIO-PS-2G/3AC/24DC/20	2903148	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
TRIO-PS/3AC/24DC/40	2866404	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	b

Order No.	UL					CSA	Ship					EX		Installation height												
	CE	UL Listed UL 508	UL/C-UL Listed UL 508	UL/C-UL Recognized UL 60950	UL Listed ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D	UL 1310 NEC Class 2	CSA 22.2 No 107.1-01	CSA 22.2 No 60950-1-07	GL - Germanischer Lloyd	ABS - American Bureau of Shipping	BV - Bureau Veritas	LR - Lloyd's Register	NK - Nippon Kaiji Kyokai		DNV - Det Norske Veritas	RINA	ATEX	IEC Ex	DeviceNet™	SEMI F47-0706 Compliance Certificate PQ Star	CB Scheme	Medical standard IEC 60601	Railway standard EN 50155, 50121-4	EAC	Startup at -40°C	
<b>MINI POWER power supplies</b>																										
MINI-PS-100-240AC/24DC/1.3	2866446	•	•	•	•	•																		•	d	
MINI-SYS-PS-100-240AC/24DC/1.5	2866983	•	•	•	•																			•	a	
MINI-SYS-PS-100-240AC/24DC/1.5/EX	2866653	•	•	•												•								•	a	
MINI-PS-100-240AC/24DC/2	2938730	•	•	•	•	•																		•	b	
MINI-PS-100-240AC/24DC/C2LPS	2866336	•	•	•	•	•																		•	a	
MINI-PS-100-240AC/24DC/4	2938837	•	•	•	•																			•	a	
MINI-PS-100-240AC/5DC/3	2938714	•	•	•	•																			•	b	
MINI-PS-100-240AC/10-15DC/2	2938756	•	•	•	•																			•	d	
MINI-PS-100-240AC/10-15DC/8	2866297	•	•	•	•																			•	a	
MINI-PS-100-240AC/2x15DC/1	2938743	•	•	•	•	•																		•	b	
<b>UNO POWER power supplies</b>																										
UNO-PS/1AC/24DC/30W	2902991	•	•	•	•	•																		•	•	a
UNO-PS/1AC/24DC/60W	2902992	•	•	•	•	•																		•	•	d
UNO-PS/1AC/24DC/90W/C2LPS	2902994	•	•	•	•	•																		•	•	a
UNO-PS/1AC/24DC/100W	2902993	•	•	•	•																			•	•	a
UNO-PS/1AC/24DC/150W	2904376	•	•	•	•																			•	•	c
UNO-PS/1AC/24DC/240W	2904372	•	•	•	•																			•	•	a
UNO-PS/1AC/5DC/25W	2904374	•	•	•	•	•																		•	•	b
UNO-PS/1AC/5DC/40W	2904375	•	•	•	•	•																		•	•	a
UNO-PS/1AC/12DC/30W	2902998	•	•	•	•																			•	•	a
UNO-PS/1AC/12DC/55W	2902999	•	•	•	•																			•	•	d
UNO-PS/1AC/12DC/100W	2902997	•	•	•	•																			•	•	c
UNO-PS/1AC/15DC/30W	2903000	•	•	•	•	•																		•	•	a
UNO-PS/1AC/15DC/55W	2903001	•	•	•	•																			•	•	d
UNO-PS/1AC/15DC/100W	2903002	•	•	•	•																			•	•	d
UNO-PS/1AC/48DC/60W	2902995	•	•	•	•	•																		•	•	d
UNO-PS/1AC/48DC/100W	2902996	•	•	•	•																			•	•	c
UNO-PS/2AC/24DC/90W/C2LPS	2904371	•	•	•	•	•																		•	•	b

- a) Max. 3000 m
- b) Max. 4000 m
- c) Max. 5000 m
- d) Max. 6000 m
- e) Max. 2000 m

All products receive further approvals on a continual basis. For up-to-date information, please refer to the Phoenix Contact website under "Downloads" for the relevant products.

Order No.	CE	UL				CSA	Ship						EX		DeviceNet™	SEMI F47-0706 Compliance Certificate PQ Star	CB Scheme	Medical standard IEC 60601	Railway standard EN 50155, 50121-4	EAC	Startup at -40°C	Installation height
		UL Listed UL 508	UL/C-UL Listed UL 508	UL/C-UL Recognized UL 60950	UL Listed ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D	UL 1310 NEC Class 2	CSA 22.2 No 107.1-01	CSA 22.2 No 60950-1-07	GL - Germanischer Lloyd	ABS - American Bureau of Shipping	BV - Bureau Veritas	LR - Lloyd's Register	NK - Nippon Kaiji Kyokai	DNV - Det Norske Veritas								
<b>STEP POWER power supplies</b>																						
STEP-PS/48AC/24DC/0.5	2868716	•	•	•	•	•																b
STEP-PS/1AC/24DC/0.5	2868596	•	•	•	•	•																b
STEP-PS/1AC/24DC/0.75FL	2868622	•	•	•	•	•		•														c
STEP-PS/1AC/24DC/0.75	2868635	•	•	•	•	•		•	•	•	•	•	•	•								c
STEP-PS/1AC/24DC/1.75	2868648	•	•	•	•	•		•	•	•	•	•	•	•								c
STEP-PS/1AC/24DC/2.5	2868651	•	•	•	•	•		•	•	•	•	•	•	•								a
STEP-PS/1AC/24DC/3.8/C2LPS	2868677	•	•	•	•	•		•	•	•	•	•	•	•		•						d
STEP-PS/1AC/24DC/4.2	2868664	•	•	•	•	•		•	•	•	•	•	•	•								d
STEP-PS/277AC/24DC/3.5	2904945	•	•	•	•	•																
STEP-PS/1AC/5DC/2	2320513	•	•	•	•	•																b
STEP-PS/1AC/5DC/6.5	2868541	•	•	•	•	•		•	•	•	•	•	•	•								d
STEP-PS/1AC/15DC/4	2868619	•	•	•	•	•																c
STEP-PS/1AC/48DC/2	2868680	•	•	•	•	•		•	•	•	•	•	•	•								d
STEP-PS/1AC/12DC/1	2868538	•	•	•	•	•																b
STEP-PS/1AC/12DC/1.5FL	2868554	•	•	•	•	•		•	•	•	•	•	•	•								c
STEP-PS/1AC/12DC/1.5	2868567	•	•	•	•	•		•	•	•	•	•	•	•								c
STEP-PS/1AC/12DC/3	2868570	•	•	•	•	•		•	•	•	•	•	•	•								c
STEP-PS/1AC/12DC/5	2868583	•	•	•	•	•		•	•	•	•	•	•	•								d

Order No.	CE	UL				CSA	Ship						EX		DeviceNet™	SEMI F47-0706 Compliance Certificate PQ Star	CB Scheme	Medical standard IEC 60601	Type tested	EAC	Startup at -40°C	
		UL Listed UL 508	UL/CUL Listed UL 508	UL/CUL Recognized UL 60950	UL Listed ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D	UL 1310 NEC Class 2	CSA 22.2 No 107.1-01	CSA 22.2 No 60950-1-07	GL - Germanischer Lloyd	ABS - American Bureau of Shipping	BV - Bureau Veritas	LR - Lloyd's Register	NK - Nippon Kaiji Kyokai	DNV - Det Norske Veritas								RINA
<b>Redundancy modules</b>																						
QUINT-ORING/24DC/2x10/1x20	2320173	•	•	•	•	•		•	•	•	•	•	•	•								•
QUINT-ORING/24DC/2x20/1x40	2320186	•	•	•	•	•		•	•	•	•	•	•	•								•
QUINT-ORING/24DC/2x40/1x80	2902879	•	•	•	•	•		•	•	•	•	•	•	•								•
QUINT-DIODE/24DC/2x20A	2320157	•	•	•	•	•		•	•	•	•	•	•	•								•
QUINT-DIODE/48DC/2x20A	2320160	•	•	•	•	•		•	•	•	•	•	•	•								•
TRIO-DIODE/12-24DC/2x10/1x20	2866514	•	•	•	•	•		•	•	•	•	•	•	•								•
TRIO-DIODE/48DC/2x10/1x20	2866527	•	•	•	•	•		•	•	•	•	•	•	•								•
STEP-DIODE/5-24DC/2x5/1x10	2868606	•	•	•	•	•		•	•	•	•	•	•	•								•
UNO-DIODE/5-24DC/2x10/1x20	2905489	•	•	•	•	•		•	•	•	•	•	•	•								•

Order No.	CE	UL				CSA	Ship						EX		DeviceNet™	SEMI F47-0706 Compliance Certificate PQ Star	CB Scheme	Medical standard IEC 60601	Railway standard EN 50155	EAC	EN 50155	EN 50121	Startup at -40°C	Installation height		
		UL Listed UL 508	UL/CUL Listed UL 508	UL/CUL Recognized UL 60950	UL Listed ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D	UL 1310 NEC Class 2	CSA 22.2 No 107.1-01	CSA 22.2 No 60950-1-07	GL - Germanischer Lloyd	ABS - American Bureau of Shipping	BV - Bureau Veritas	LR - Lloyd's Register	NK - Nippon Kaiji Kyokai	DNV - Det Norske Veritas											RINA	ATEX
<b>DC/DC converters</b>																										
QUINT-PS/24DC/24DC/5	2320034	•	•	•	•			•	•	•	•	•	•	•				•			•		•	•	•	d
QUINT-PS/24DC/24DC/10	2320092	•	•	•	•			•	•	•	•	•	•	•				•			•		•	•	•	d
QUINT-PS/24DC/24DC/20	2320102	•	•	•	•			•	•	•	•	•	•	•				•			•		•	•	•	d
QUINT-PS/24DC/12DC/8	2320115	•	•	•	•			•	•	•	•	•	•	•				•			•		•	•	•	d
QUINT-PS/24DC/48DC/5	2320128	•	•	•	•			•	•	•	•	•	•	•				•			•		•	•	•	d
QUINT-PS/12DC/24DC/5	2320131	•	•	•	•			•		•	•	•	•	•				•			•		•	•	•	d
QUINT-PS/12DC/12DC/8	2905007	•	•	•																	•			•	•	d
QUINT-PS/48DC/24DC/5	2320144	•	•	•	•			•			•	•	•	•				•			•		•	•	•	d
QUINT-PS/48DC/48DC/5	2905008	•	•	•																	•			•	•	d
QUINT-PS/60-72DC/24DC/10	2905009	•	•	•																	•			•	•	d
QUINT-PS/96-110DC/24DC/10	2905010	•	•	•																	•			•	•	d
QUINT-PS/24DC/24DC/5/CO	2320542	•	•	•	•			•			•	•	•	•	•			•			•		•	•	•	d
QUINT-PS/24DC/24DC/10/CO	2320555	•	•	•	•			•			•	•	•	•	•			•			•		•	•	•	d
QUINT-PS/24DC/24DC/20/CO	2320568	•	•	•	•			•			•	•	•	•	•			•			•		•	•	•	d
QUINT-PS/60-72DC/24DC/10/CO	2905011	•	•	•																	•			•	•	d
QUINT-PS/96-110DC/24DC/10/CO	2905012	•	•	•																	•			•	•	d
MINI-PS-12-24DC/24DC/1	2866284	•	•	•	•			•													•			•		d
MINI-PS-12-24DC/5-15DC/2	2320018	•	•	•	•			•													•			•		d
MINI-PS-12-24DC/48DC/0.7	2320021	•	•	•	•			•													•			•		d
MINI-PS-48-60DC/24DC/1	2866271	•	•	•	•																•			•		d
MINI-PS/10-42AC/15-60DC/3	2320199	•	•	•																	•					

Order No.	CE	UL				CSA	Ship						EX		DeviceNet™	SEMI F47-0706 Compliance Certificate PQ Star	CB Scheme	Medical standard IEC 60601	Railway standard EN 50155	EAC	EN 50155	EN 50121	Startup at -40°C	Installation height		
		UL Listed UL 508	UL/CUL Listed UL 508	UL/CUL Recognized UL 60950	UL Listed ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D	UL 1310 NEC Class 2	CSA 22.2 No 107.1-01	CSA 22.2 No 60950-1-07	GL - Germanischer Lloyd	ABS - American Bureau of Shipping	BV - Bureau Veritas	LR - Lloyd's Register	NK - Nippon Kaiji Kyokai	DNV - Det Norske Veritas											RINA	ATEX
<b>Power supplies for frequency inverters</b>																										
QUINT-PS/2AC/1DC/24DC/20	2320830	•	•	•																						
TRIO-PS/600DC/24DC/20	2866530	•	•	•																	•					

Order No.	UL					CSA	Ship					EX	SEMI F47-0706 Compliance Certificate PQ Star	CB Scheme	Medical standard IEC 60601	EAC	Startup at -40°C	Installation height	
	CE	UL Listed UL 508	UL/CUL Listed UL 508	UL/CUL Recognized UL 60950	UL 1778	UL Listed ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D	UL 1310 NEC Class 2	CSA 22.2 No 107.1-01	CSA 22.2 No 60950-1-07	GL - Germanischer Lloyd	ABS - American Bureau of Shipping	BV - Bureau Veritas							LR - Lloyd's Register
<b>Uninterruptible power supplies</b>																			
QUINT-UPS/24DC/24DC/5	2320212	•	•	•	•				•									•	d
QUINT-UPS/24DC/24DC/10	2320225	•	•	•	•				•									•	d
QUINT-UPS/24DC/24DC/20	2320238	•	•	•	•				•									•	d
QUINT-UPS/24DC/24DC/40	2320241	•	•	•	•				•									•	d
QUINT-UPS/24DC/12DC/5/24DC/10	2320461	•	•	•															e
QUINT-UPS/24DC/24DC/5/1.3AH	2320254	•	•	•	•													•	d
QUINT-UPS/24DC/24DC/10/3.4AH	2320267	•	•	•	•													•	d
QUINT-UPS/1AC/1AC/500VA	2320270	•		•	•													•	e
QUINT-BUFFER/24DC/40	2320393	•	•	•	•													•	e
UPS-BAT/VRLA/24DC/1.3AH	2320296	•	•	•	•													•	d
UPS-BAT/VRLA/24DC/3.4AH	2320306	•	•	•	•													•	d
UPS-BAT/VRLA/24DC/7.2AH	2320319	•	•	•	•													•	d
UPS-BAT/VRLA/24DC/12AH	2320322	•	•	•	•													•	d
UPS-BAT/VRLA/24DC/38AH	2320335	•	•	•	•				•									•	d
UPS-BAT/VRLA-WTR/24DC/13AH	2320416	•	•	•	•													•	d
UPS-BAT/VRLA-WTR/24DC/26AH	2320429	•	•	•	•													•	d
UPS-BAT/LI-ION/24DC/120WH	2320351	•	•	•	•													•	d
UPS-CAP/24DC/10A/10KJ	2320377	•	•	•	•													•	d
UPS-CAP/24DC/20A/20KJ	2320380	•	•	•	•													•	d
STEP-UPS/24DC/24DC/3	2868703	•	•	•														•	e
STEP-UPS/12DC/12DC/4	2868693	•	•	•														•	e
STEP-BAT/LIPO/18.5DC/1.4AH	2320364	•		•														•	e
TRIO-UPS/1AC/24DC/5	2866611	•	•	•					•									•	d
MINI-DC-UPS/24DC/2	2866640	•	•	•	•													•	c
MINI-BAT/24DC/0.8AH	2866666	•			•													•	d
MINI-BAT/24DC/1.3AH	2866417	•			•													•	d
MINI-DC-UPS/12DC/4	2866598	•	•	•	•													•	d
MINI-BAT/12DC/1.6AH	2866572	•			•													•	d
MINI-BAT/12DC/2.6AH	2866569	•			•													•	d

- a) Max. 3000 m
- b) Max. 4000 m
- c) Max. 5000 m
- d) Max. 6000 m
- e) Max. 2000 m

All products receive further approvals on a continual basis. For up-to-date information, please refer to the Phoenix Contact website under "Downloads" for the relevant products.



Always up-to-date, always available to you. Here you'll find everything on our products, solutions and service:

[phoenixcontact.com](http://phoenixcontact.com)

## Product range

- Cables and wires
- Connectors
- Controllers
- Electronics housings
- Electronic switchgear and motor control
- Fieldbus components and systems
- Functional safety
- HMIs and industrial PCs
- I/O systems
- Industrial communication technology
- Industrial Ethernet
- Installation and mounting material
- Lighting and signaling
- Marking and labeling
- Measurement and control technology
- Modular terminal blocks
- Monitoring
- PCB terminal blocks and PCB connectors
- Power supply units and UPS
- Protective devices
- Relay modules
- Sensor/actuator cabling
- Software
- Surge protection and interference filters
- System cabling for controllers
- Tools
- Wireless data communication

PHOENIX CONTACT GmbH & Co. KG  
Flachmarktstraße 8  
32825 Blomberg, Germany  
Phone: + 49 5235 3-00  
Fax: + 49 5235 3-41200  
E-mail: [info@phoenixcontact.com](mailto:info@phoenixcontact.com)  
[phoenixcontact.com](http://phoenixcontact.com)