



Power supplies and UPS

2018/2019

Power for superior system availability

Our POWER products supply your applications with leading technology and high quality. Power supplies, DC/DC converters, redundancy modules, and uninterruptible power supplies are optimally tailored in terms of their functionality and design to the demands of various different industries.

With our QUINT, TRIO, UNO, MINI, and STEP product ranges, you are ideally equipped for international competition.

Find out more with the web code

You will find web codes throughout this brochure: a pound sign followed by a four-digit number combination.

 Web code: #1234 (example)

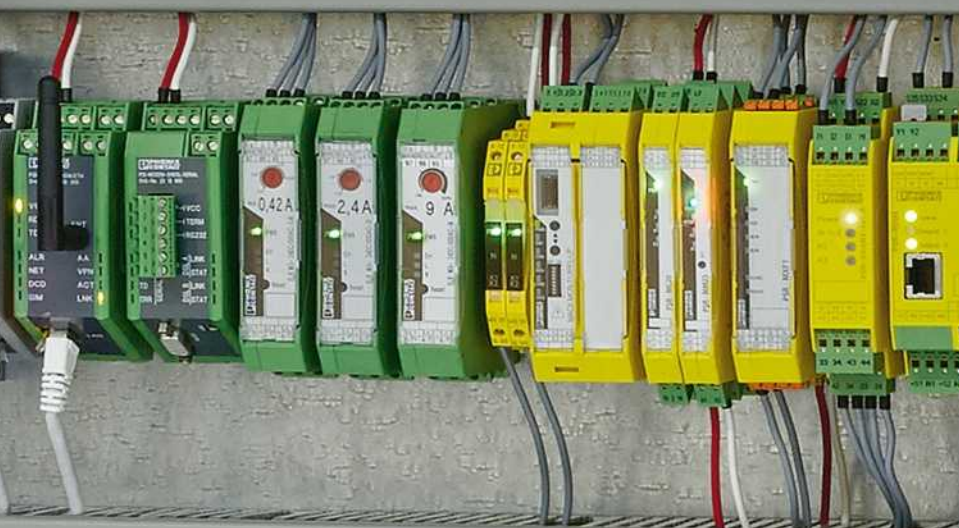
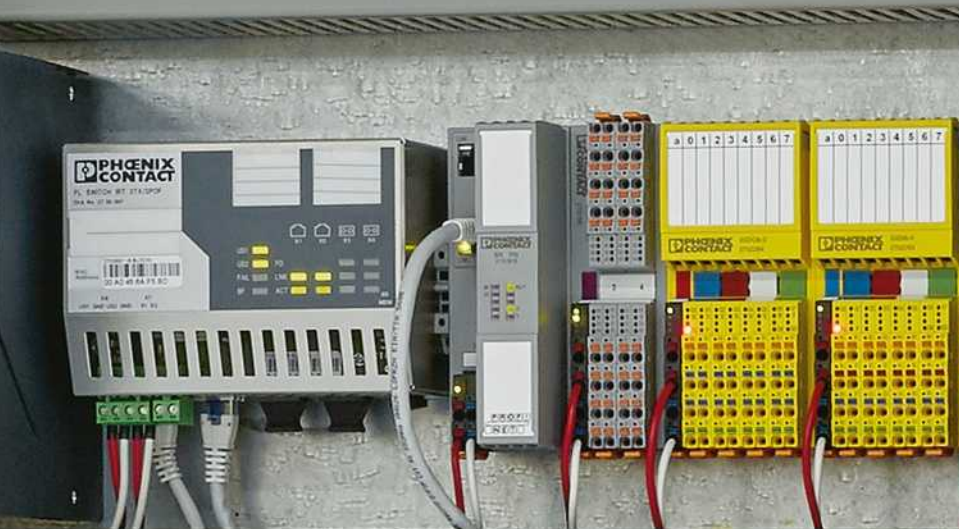
This allows you to access further information on our website quickly.

It could not be easier:

1. Go to the Phoenix Contact website
2. Enter # and the number combination in the search field
3. Receive more information and product versions

Or use the direct link:

phoenixcontact.net/webcode/#1234



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Innovative technologies

With our innovative technologies, we are decisively shaping the latest trends and developments. Phoenix Contact Power Supplies plays a leading technological role in the field of industrial power supplies.

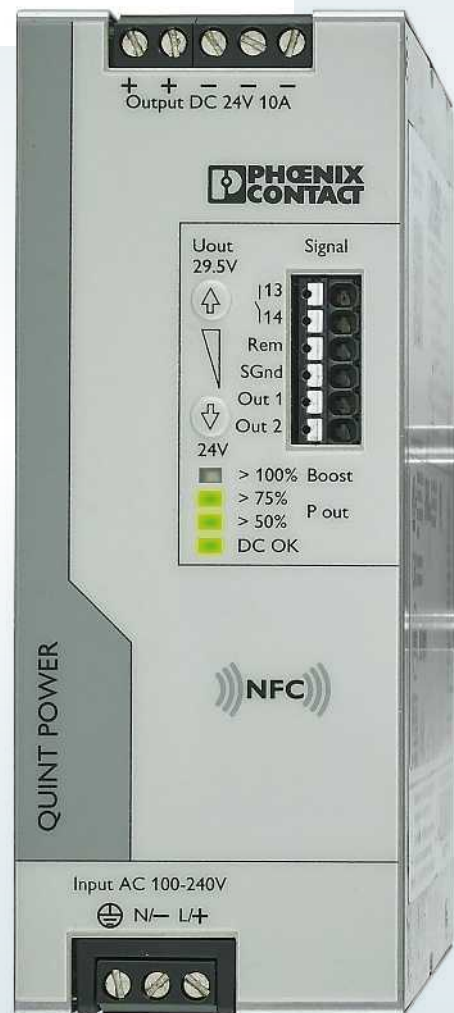
- SFB Technology reliably trips standard miniature circuit breakers
- ACB Technology doubles the service life of redundant power supply units
- IQ Technology monitors and optimizes the energy storage system of the uninterruptible power supplies



Power supplies with SFB Technology (Selective Fuse Breaking)

- 6 times the nominal current for 15 ms
- Reliably switches off faulty current paths in the event of a short circuit
- Key system parts remain in operation without any interruption

For more information, refer to page 10 onwards.



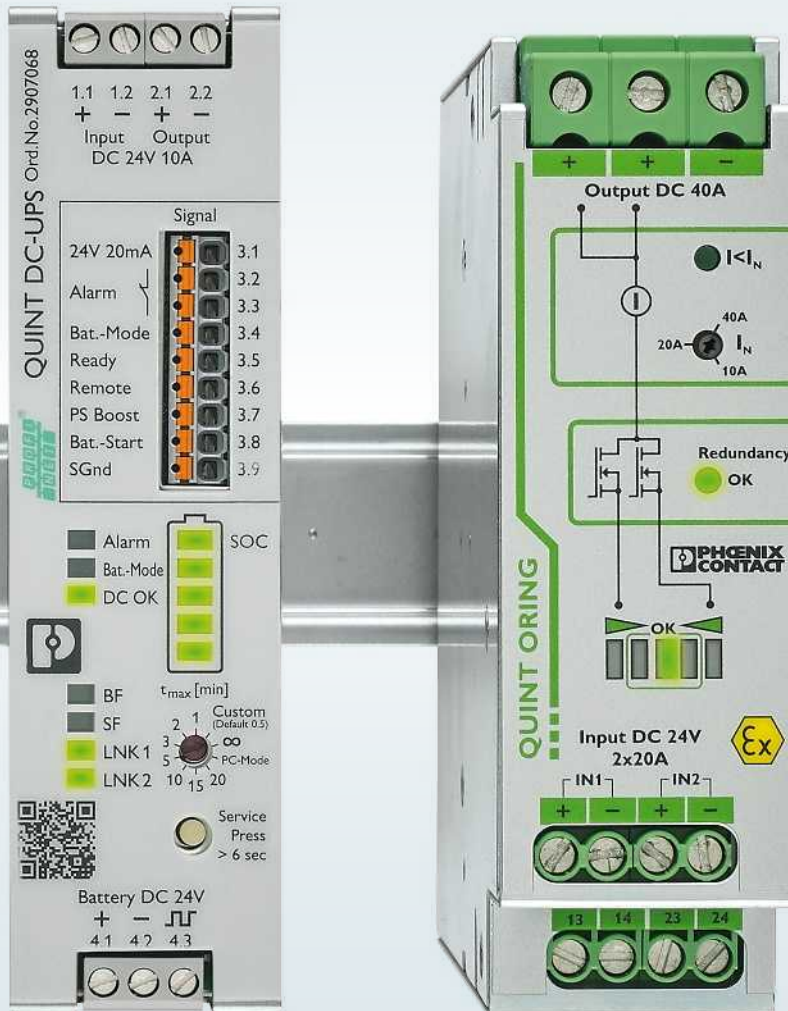
Auto Current Balancing Technology[®]

Designed by PHOENIX CONTACT

Redundancy modules with ACB Technology (Auto Current Balancing)

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

For more information, refer to page 34 onwards.



IQ Technology[®]

Designed by PHOENIX CONTACT

Uninterruptible power supplies for integration into industrial networks

- Battery management system (BMS) with IQ Technology
- Provide information on the remaining runtime, state of charge, and service life of the energy storage system
- Optimize the charging characteristic for maximum service life
- Interfaces allow integration into any industrial network

For more information, refer to page 40 onwards.

Power supplies for every application

Our power supplies are used in a wide variety of sectors and industries. With their various functionalities, performance classes, and designs, they are the right partner for your application.

- QUINT POWER: Automotive industry, systems manufacturing, process industry, ship building
- TRIO POWER: Machine building
- UNO POWER: Electromobility
- MINI POWER and STEP POWER: Urban infrastructure, building automation

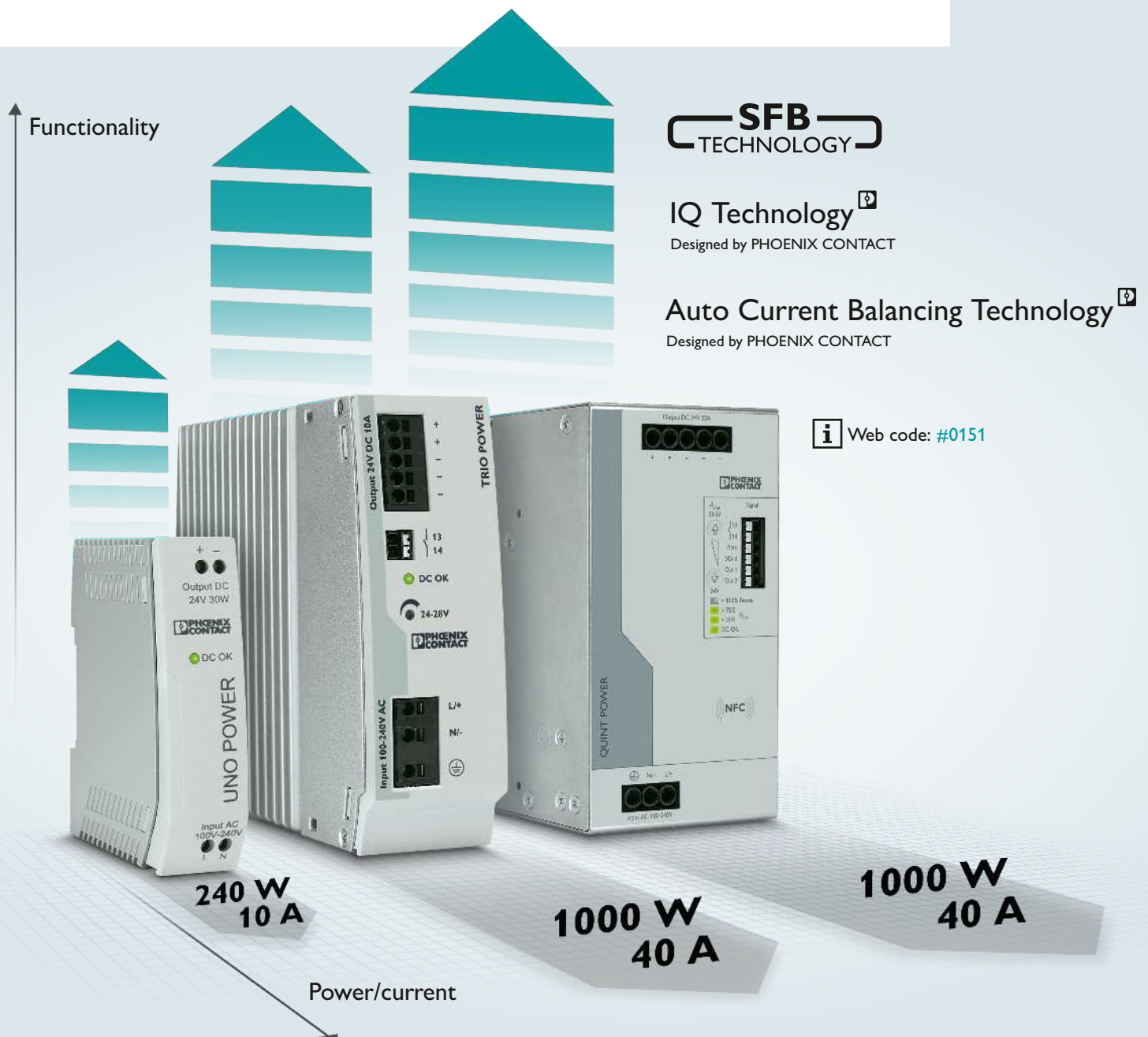


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Power supplies – A comparison of your advantages

The product ranges differ with regard to their design, power, and functionality. Select the ideal solution based on your requirements:

- QUINT POWER – Powerful, space-saving, and with maximum functionality
- TRIO POWER – Robust with standard functionality
- UNO POWER – Compact with basic functionality
- MINI POWER – For measurement and control technology
- STEP POWER – For installation distributors



Our power supplies at a glance

Common features and differences

What they can all do

The various series share many common advantages: the power supplies of all the product ranges increase system availability and can be used worldwide, thanks to their international approval package and their wide range input.

They have a high degree of operational safety, can be connected in parallel and can also be

installed without problems in outdoor control cabinets.

Maximum system availability

Our aim is to ensure the maximum availability of your system. Our QUINT POWER power supplies with SFB Technology are ideally suited for this. The power reserve allows high loads to be started, and also the easy extension of

your system. SFB Technology, NFC interfaces and preventive function monitoring round out the power portfolio.

			TRIO POWER	UNO POWER	MINI POWER	STEP POWER
	QUINT POWER					
	With SFB Technology	< 100 W				
Worldwide use thanks to the wide range input and international approval package	•	•	•	•	•	•
Maximum operating time thanks to high MTBF > 500,000 h at +40°C	•	•	•	•	•	•
Can be switched in parallel for increased performance and redundancy	•	•	•	•	•	•
Outdoor installation approved thanks to broad temperature range of -25°C ... +70°C	•	•	•	•	•	•
Active function monitoring by means of switching output for remote diagnostics	•	•	•		•	
Three-phase devices error-free operation, even if one phase fails permanently	•		•			
Reliable starting of high loads with the power reserve: dynamic boost	•	•	•			
Easy system extension with the power reserve: static boost	•	•*				
Magnetic tripping of miniature circuit breakers thanks to SFB Technology	•					
Preventive function monitoring reports critical operating states before errors occur	•	•				
NFC interface for wireless configuration	•					

*Applies to the following devices: 2904597, 2904598, 2909575, 2909576

Power supplies

QUINT POWER – Powerful with SFB Technology

The powerful QUINT POWER power supplies with SFB Technology, preventive function monitoring, and long service life increase the availability of your application. You can adjust signaling thresholds and characteristic curves individually. Furthermore, they can be ordered preconfigured from a batch quantity of just 1.

 Web code: [#1513](#)

Your advantages

- ✓ SFB Technology selectively trips standard miniature circuit breakers. Connected loads continue to work without interruption
- ✓ Preventive function monitoring reports critical operating states before they occur
- ✓ Power reserve for easy system extension, thanks to static boost with sustained power of up to 125%, and ability to start heavy loads, thanks to dynamic boost with up to 200% for 5 seconds
- ✓ High level of immunity, thanks to integrated gas-filled surge arrester, more than 20 ms mains buffering
- ✓ Robust design in a metal housing and a broad temperature range of -40°C to +70°C



SFB Technology

SFB Technology (Selective Fuse Breaking) trips standard miniature circuit breakers reliably and quickly with up to six times the nominal current for 15 ms. Faulty current paths are switched off selectively, the fault is located, and important system parts remain in operation.

Designed by PHOENIX CONTACT



NFC

With Near Field Communication (NFC), you can configure power supplies easily and precisely using a PC or mobile terminal devices. For example, you can configure signaling thresholds and the output voltage, and adjust characteristic curves individually.



Product overview QUINT POWER power supplies with SFB Technology

QUINT POWER, with NFC Technology, 1~				C1 D2	NFC	SFB TECHNOLOGY
						
Input	85 ... 264 V AC, 90 ... 350 V DC	85 ... 264 V AC, 90 ... 350 V DC	85 ... 264 V AC, 90 ... 350 V DC			
W x H x D in mm	36 x 130 x 125	50 x 130 x 125	70 x 130 x 125			
	24 V/5 A	24 V/10 A	24 V/20 A			
Type	QUINT4-PS/1AC/24DC/5	QUINT4-PS/1AC/24DC/10	QUINT4-PS/1AC/24DC/20			
Order No.	2904600	2904601	2904602			
		12 V/15 A New				
		QUINT4-PS/1AC/12DC/15				
		2904608				
		48 V/5 A New	48 V/10 A			
		QUINT4-PS/1AC/48DC/5	QUINT4-PS/1AC/48DC/10			
		2904610	2904611			

QUINT POWER, with NFC Technology, 3~				C1 D2	NFC	SFB TECHNOLOGY
						
Input	3 x 320 ... 550 V AC, 2 x 360 ... 550 V AC, +/- 300 V DC	3 x 320 ... 550 V AC, 2 x 360 ... 550 V AC, +/- 260 ... 300 V DC	3 x 320 ... 550 V AC, 2 x 360 ... 550 V AC, +/- 260 ... 300 V DC			
W x H x D in mm	36 x 130 x 125	50 x 130 x 125	70 x 130 x 125			
	24 V/5 A	24 V/10 A	24 V/20 A			
Type	QUINT4-PS/3AC/24DC/5	QUINT4-PS/3AC/24DC/10	QUINT4-PS/3AC/24DC/20			
Order No.	2904620	2904621	2904622			

Maximum protection for your system

For extreme operating conditions, use the ideally matched combination of PLUGTRAB SEC surge protection device and the powerful QUINT POWER power supply of the fourth generation.

However, should your fourth-generation QUINT POWER become damaged in the first five years following purchase despite the use of this combination, you will receive a free replacement.

Further information and conditions can be found on the Internet under order number [2907928](https://www.phoenixcontact.com) at www.phoenixcontact.com



	QUINT POWER, 1~				C1 D2	SFB TECHNOLOGY
						
Input	85 ... 264 V AC, 90 ... 350 V DC	85 ... 264 V AC, 90 ... 350 V DC	85 ... 264 V AC, 90 ... 300 V DC	85 ... 264 V AC, 90 ... 300 V DC		
W x H x D in mm	32 x 130 x 125	90 x 130 x 125	180 x 130 x 125	180 x 130 x 125		
	24 V/3.5 A	12 V/20 A	24 V/40 A	48 V/20 A		
Type	QUINT-PS/1AC/24DC/3.5	QUINT-PS/1AC/12DC/20	QUINT-PS/1AC/24DC/40	QUINT-PS/1AC/48DC/20		
Order No.	2866747	2866721	2866789	2866695		

	QUINT POWER, 3~		C1 D2	SFB TECHNOLOGY
				
Input	3 x 320 ... 575 V AC, 2 x 360 ... 575 V AC, 450 ... 800 V DC	3 x 320 ... 575 V AC, 450 ... 800 V DC		
W x H x D in mm	96 x 130 x 176	96 x 130 x 176		
	24 V/40 A	48 V/20 A		
Type	QUINT-PS/3AC/24DC/40	QUINT-PS/3AC/48DC/20		
Order No.	2866802	2320827		

QUINT POWER with SFB Technology for extreme ambient conditions

The PCB coating protects against dust, corrosive gases, and 100% humidity as well as failures caused by corrosion-related creepage currents and electrochemical migration. The

components are protected within a wide temperature range of 40°C to 70°C.

QUINT POWER, with protective coating		C1 D2	IP67	SFB TECHNOLOGY
	   	   	   	 
Input	Single-phase, 85 ... 264 V AC, 90 ... 410 V DC	Single-phase, 85 ... 264 V AC, 90 ... 410 V DC	Single-phase, 85 ... 264 V AC, 90 ... 410 V DC	Three-phase, 3 x 320 ... 575 V AC, 450 ... 800 V DC
W x H x D in mm	40 x 130 x 125	60 x 130 x 125	90 x 130 x 125	69 x 130 x 125
	1 AC/24 V/5 A/CO	1 AC/24 V/10 A/CO	1 AC/24 V/20 A/CO	3 AC/24 V/20 A/CO
Type	QUINT-PS/1AC/24DC/5/CO	QUINT-PS/1AC/24DC/10/CO	QUINT-PS/1AC/24DC/20/CO	QUINT-PS/3AC/24DC/20/CO
Order No.	2320908	2320911	2320898	2320924

Power supplies

QUINT POWER – Powerful and space-saving

For the first time, QUINT POWER provides superior system availability in the smallest size in the power range of up to 100 W. Preventive function monitoring and exceptional power reserves are now also available for applications in the low-power range.

 Web code: [#1513](#)



Your advantages

- ✓ Startup of heavy loads, thanks to dynamic boost
- ✓ Preventive function monitoring reports critical operating states before errors occur
- ✓ High efficiency and long service life with low power dissipation and low heating
- ✓ Space savings in the control cabinet, thanks to a narrow, slim-line design
- ✓ Free selection between Push-in and screw connection

Product overview QUINT POWER power supplies < 100 W

QUINT POWER, with screw connection, 1~				C1 D2 *
				
Input	85 ... 264 V AC	85 ... 264 V AC	85 ... 264 V AC	
W x H x D in mm	22.5 x 99 x 90	32 x 99 x 90	45 x 99 x 90	
	24 V/1.3 A New	24 V/2.5 A New	24 V/3.8 A New	
Type	QUINT4-PS/1AC/24DC/1.3/SC	QUINT4-PS/1AC/24DC/2.5/SC	QUINT4-PS/1AC/24DC/3.8/SC	
Order No.	2904597	2904598	2904599	

QUINT POWER, with Push-in connection, 1~				C1 D2 *
				
Input	85 ... 264 V AC	85 ... 264 V AC	85 ... 264 V AC	
W x H x D in mm	22.5 x 106 x 90	32 x 106 x 90	45 x 106 x 90	
	24 V/1.3 A New	24 V/2.5 A New	24 V/3.8 A New	
Type	QUINT4-PS/1AC/24DC/1.3/PT	QUINT4-PS/1AC/24DC/2.5/PT	QUINT4-PS/1AC/24DC/3.8/PT	
Order No.	2909575	2909576	2909577	

*Approval in preparation

Power supplies

TRIO POWER – Robust with standard functionality

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

 Web code: [#0497](#)



Your advantages

- ✓ Very cost-effective, thanks to time-saving, tool-free Push-in connection, and thanks to a slim design
- ✓ Reliable starting of heavy loads, thanks to the dynamic power reserve, with 150% of the nominal current for a maximum of five seconds
- ✓ Electrically robust, thanks to high electric strength
- ✓ Mechanically robust, thanks to high vibration and shock resistance

Product overview TRIO POWER power supplies

TRIO POWER, with Push-in connection, 1~				
				
Input	85 ... 264 V AC, 99 ... 275 V DC	85 ... 264 V AC, 99 ... 275 V DC	85 ... 264 V AC, 99 ... 275 V DC	85 ... 264 V AC, 99 ... 275 V DC
W x H x D in mm	30 x 130 x 115	35 x 130 x 115	42 x 130 x 160	68 x 130 x 160
	24 V/3 A/C2LPS*	24 V/5 A	24 V/10 A	24 V/20 A
Type	TRIO-PS-2G/ 1AC/24DC/3/C2LPS	TRIO-PS-2G/ 1AC/24DC/5	TRIO-PS-2G/ 1AC/24DC/10	TRIO-PS-2G/ 1AC/24DC/20
Order No.	2903147	2903148	2903149	2903151
		24 V/5 A/B+D	24 V/10 A/B+D	
Type		TRIO-PS-2G/ 1AC/24DC/5/B+D	TRIO-PS-2G/ 1AC/24DC/10/B+D	
Order No.		2903144	2903145	
	12 V/5 A/C2LPS*	12 V/10 A		
Type	TRIO-PS-2G/ 1AC/12DC/5/C2LPS	TRIO-PS-2G/ 1AC/12DC/10		
Order No.	2903157	2903158		
			48 V/5 A	48 V/10 A
Type			TRIO-PS-2G/1AC/48DC/5	TRIO-PS-2G/1AC/48DC/10
Order No.			2903159	2903160

*NEC Class 2 output, certified in accordance with UL 1310 / Limited Power Source (LPS) in accordance with UL 60950-1

TRIO POWER, with Push-in connection, 3~				
				
Input	3 x 320 ... 575 V AC, 2 x 360 ... 575 V AC	3 x 320 ... 575 V AC, 2 x 360 ... 575 V AC	3 x 320 ... 575 V AC, 2 x 360 ... 575 V AC	3 x 320 ... 575 V AC
W x H x D in mm	35 x 130 x 115	42 x 130 x 160	65 x 130 x 160	110 x 130 x 160
	24 V/5 A	24 V/10 A	24 V/20 A	24 V/40 A
Type	TRIO-PS-2G/3AC/24DC/5	TRIO-PS-2G/3AC/24DC/10	TRIO-PS-2G/3AC/24DC/20	TRIO-PS-2G/3AC/24DC/40
Order No.	2903153	2903154	2903155	2903156

TRIO POWER, 3~	
	 New
Input	3 x 340 ... 480 V AC
W x H x D in mm	110 x 130 x 160
	150 V/6 A
Type	TRIO-PS-2G/3AC/150DC/6
Order No.	2909900

Power supplies

UNO POWER – Compact with 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 from 5 to 48 V DC covers all common voltage levels.

 Web code: [#1512](#)



Your advantages

- ✓ Maximum energy efficiency, thanks to high efficiency of up to 94% and thanks to extremely low idling losses of less than 0.3 W
- ✓ Particularly compact, thanks to high power density
- ✓ Outdoor installation possible at a broad temperature range of -25°C to +70°C

Product overview UNO POWER power supplies

	UNO POWER, 1~ C1 D2		
			
Input	85 ... 264 V AC	85 ... 264 V AC	85 ... 264 V AC
W x H x D in mm	22.5 x 90 x 84	35 x 90 x 84	55 x 90 x 84
	24 V/30 W	24 V/60 W	24 V/100 W
Type	UNO-PS/1AC/24DC/30W	UNO-PS/1AC/24DC/60W	UNO-PS/1AC/24DC/100W
Order No.	2902991	2902992	2902993
			24 V/90 W/C2LPS*
Type			UNO-PS/1AC/24DC/90W/C2LPS
Order No.			2902994
		48 V/60 W	48 V/100 W
Type		UNO-PS/1AC/48DC/60W	UNO-PS/1AC/48DC/100W
Order No.		2902995	2902996
	15 V/30 W	15 V/55 W	15 V/100 W
Type	UNO-PS/1AC/15DC/30W	UNO-PS/1AC/15DC/55W	UNO-PS/1AC/15DC/100W
Order No.	2903000	2903001	2903002
	12 V/30 W	12 V/55 W	12 V/100 W
Type	UNO-PS/1AC/12DC/30W	UNO-PS/1AC/12DC/55W	UNO-PS/1AC/12DC/100W
Order No.	2902998	2902999	2902997
	5 V/25 W	5 V/40 W	
Type	UNO-PS/1AC/5DC/25W	UNO-PS/1AC/5DC/40W	
Order No.	2904374	2904375	

	UNO POWER, 1~ C1 D2		UNO POWER, 2~ C1 D2
			
Input	85 ... 264 V AC	85 ... 264 V AC	264 ... 575 V AC
W x H x D in mm	37 x 130 x 125	45 x 130 x 125	55 x 90 x 84
	24 V/150 W	24 V/240 W	24 V/90 W/C2LPS*
Type	UNO-PS/1AC/24DC/150W	UNO-PS/1AC/24DC/240W	UNO-PS/2AC/24DC/90W/C2LPS
Order No.	2904376	2904372	2904371

*NEC Class 2 output, certified in accordance with UL 1310, Limited Power Source (LPS) in accordance with UL 60950-1

Power supplies

STEP POWER – For installation distributors

Power supplies of the STEP POWER range are ideal for installation distributors and flat control panels. Thanks to their low standby losses and high degree of efficiency, they achieve maximum energy efficiency in their class.

 Web code: [#1930](#)



Your advantages

- ✓ Flexible assembly: snap onto the DIN rail or screw on a level surface
- ✓ Reliable power supply, thanks to high MTBF > 500,000 h at +40°C, and U/I characteristic curve for the supply of capacitive loads
- ✓ Outdoor installation possible, thanks to the wide temperature range of -25°C to +70°C
- ✓ Save energy, thanks to maximum energy efficiency and incredibly low standby losses

Product overview STEP POWER power supplies

STEP POWER, 1~				
		 Flat design		
Input	85 ... 264 V AC, 95 ... 250 V DC	85 ... 264 V AC, 95 ... 250 V DC	85 ... 264 V AC, 95 ... 250 V DC	85 ... 264 V AC, 95 ... 250 V DC
W x H x D in mm	18 x 90 x 61	36 x 90 x 43	36 x 90 x 61	54 x 90 x 61
	24 V/0.5 A 	24 V/0.75 A FL 	24 V/0.75 A 	24 V/1.75 A 
Type	STEP-PS/1AC/24DC/0.5	STEP-PS/1AC/24DC/0.75/FL	STEP-PS/1AC/24DC/0.75	STEP-PS/1AC/24DC/1.75
Order No.	2868596	2868622	2868635	2868648
	12 V/1 A 	12 V/1.5 A FL 	12 V/1.5 A 	12 V/3 A 
Type	STEP-PS/1AC/12DC/1	STEP-PS/1AC/12DC/1.5/FL	STEP-PS/1AC/12DC/1.5	STEP-PS/1AC/12DC/3
Order No.	2868538	2868554	2868567	2868570
	5 V/2 A			
Type	STEP-PS/1AC/5DC/2			
Order No.	2320513			

	STEP POWER, 1~		STEP for 48 V AC	STEP for 277 V AC
				
Input	85 ... 264 V AC, 95 ... 250 V DC	85 ... 264 V AC, 95 ... 250 V DC	43 ... 52 V AC, 60 ... 80 V DC	85 ... 305 V AC, 95 ... 250 V DC
W x H x D in mm	72 x 90 x 61	90 x 90 x 61	18 x 90 x 61	90 x 90 x 61
	24 V/2.5 A 	24 V/4.2 A 	48 V AC/24 V DC/0.5 A	277 V AC/24 V DC/3.5 A
Type	STEP-PS/1AC/24DC/2.5	STEP-PS/1AC/24DC/4.2	STEP-PS/48AC/24DC/0.5	STEP-PS/277AC/24DC/3.5
Order No.	2868651	2868664	2868716	2904945
	15 V/4 A 	24 V/100 W/C2LPS* 		
Type	STEP-PS/1AC/15DC/4	STEP-PS/1AC/24DC/3.8/C2LPS		
Order No.	2868619	2868677		
	12 V/5 A 	48 V/2 A 		
Type	STEP-PS/1AC/12DC/5	STEP-PS/1AC/48DC/2		
Order No.	2868583	2868680		
	5 V/6.5 A 			
Type	STEP-PS/1AC/5DC/6.5			
Order No.	2868541			

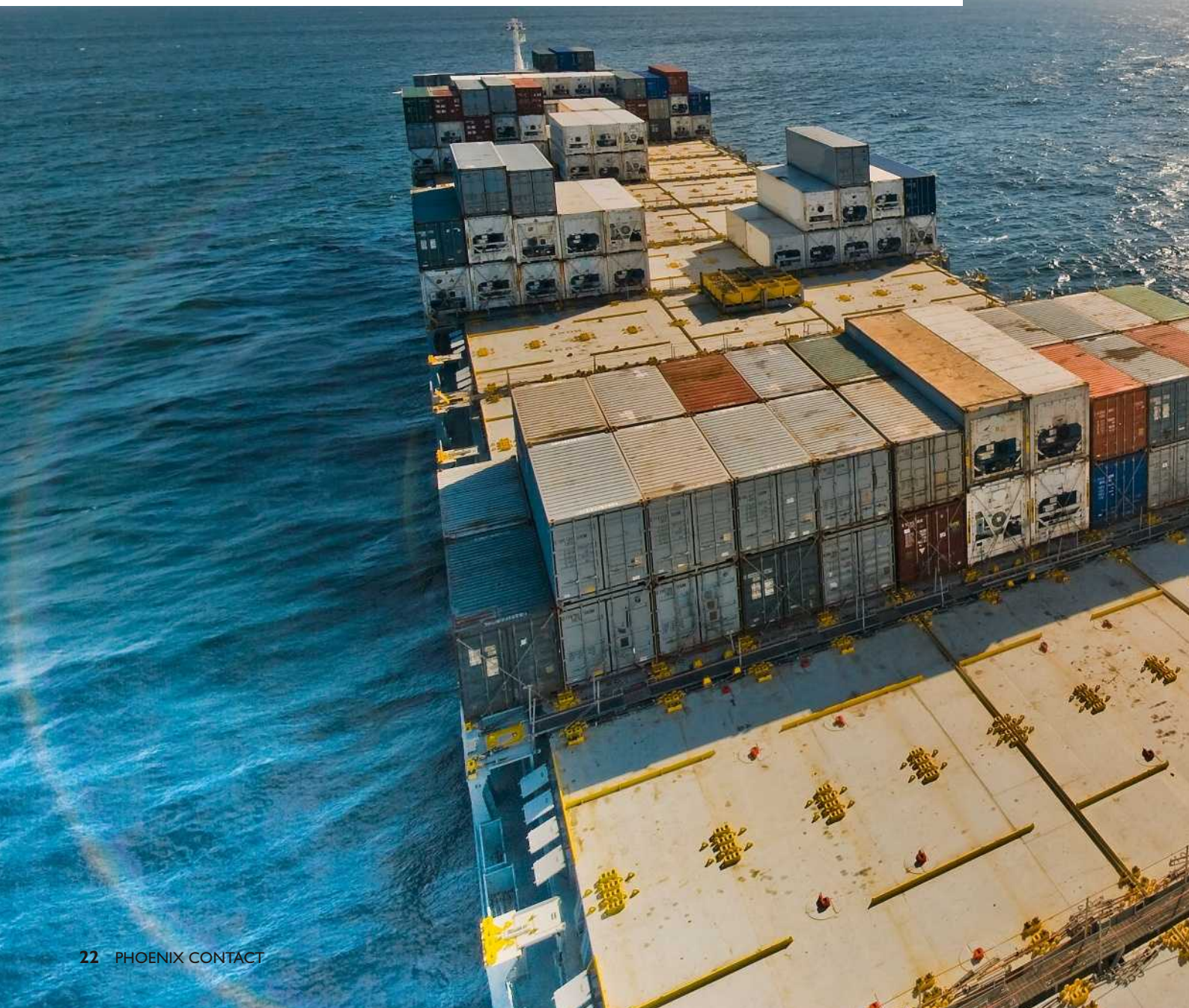
*NEC Class 2 output, certified in accordance with UL 1310 / Limited Power Source (LPS) in accordance with UL 60950-1

DC/DC converters – For a regulated DC voltage

Avoid disturbances in your application by using DC/DC converters. The load is always supplied with a regulated DC voltage, even with long cable lengths.

Phoenix Contact provides:

- DC/DC converters with SFB Technology and for extreme demands
- DC/DC converters for control technology
- DC/DC converters for photovoltaic applications





DC/DC converters

DC/DC converters adapt voltages

QUINT and MINI DC/DC converters alter the voltage level. They regenerate the voltage at the end of long cables or aid in the setup of independent supply systems through electrical isolation.

The DC/DC converters of the QUINT range are suitable for high powers, with currents up to 20 A. The DC/DC converters of the MINI range are suitable for low powers, with currents up to 2 A.

i Web code: #0152

SFB
TECHNOLOGY



Your advantages QUINT DC/DC converters

- ✓ Fast tripping of standard miniature circuit breakers, thanks to dynamic power reserve – SFB Technology supplies up to 6 times the nominal current for 12 ms
- ✓ Preventive function monitoring reports critical operating states before errors occur
- ✓ Remote monitoring, thanks to active switching output and floating relay contact
- ✓ Reliable starting of heavy loads and easy system extension, thanks to static boost with a sustained power reserve of up to 125% of the nominal current

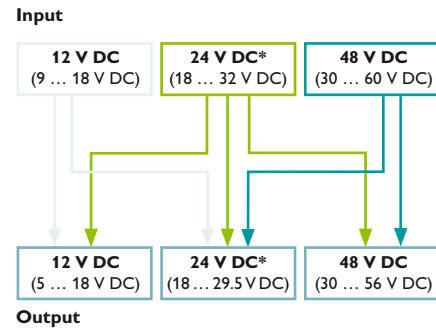
Overview of the voltage levels

QUINT DC/DC converters

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

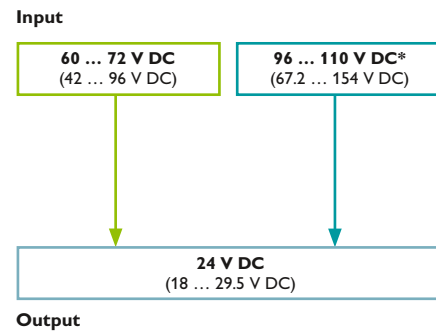


* During operation from 14 ... 32 V DC



QUINT DC/DC converters with wide-range input

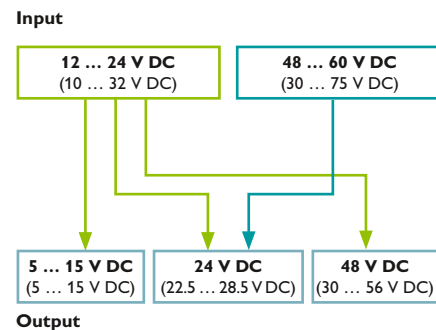
High degree of flexibility thanks to wide input range, e.g. for railway applications or energy generation.



MINI DC/DC converters

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

An LED and an active switching output monitor the output voltage. The connection technology is particularly service-friendly, thanks to the coded COMBICON connectors.



Product overview DC/DC converters

QUINT DC/DC converters				C1 D2	SFB TECHNOLOGY
					
Input	18 ... 32 V DC	18 ... 32 V DC	18 ... 32 V DC	9 ... 18 V DC	
W x H x D in mm	32 x 130 x 125	48 x 130 x 125	82 x 130 x 125	32 x 130 x 125	
	24 V/24 V/5 A	24 V/24 V/10 A	24 V/24 V/20 A	12 V/24 V/5 A	
Type	QUINT-PS/24DC/24DC/5	QUINT-PS/24DC/24DC/10	QUINT-PS/24DC/24DC/20	QUINT-PS/12DC/24DC/5	
Order No.	2320034	2320092	2320102	2320131	
	24 V/12 V/8 A	24 V/48 V/5 A		12 V/12 V/8 A	
Type	QUINT-PS/24DC/12DC/8	QUINT-PS/24DC/48DC/5		QUINT-PS/12DC/12DC/8	
Order No.	2320115	2320128		2905007	
					
Input	30 ... 60 V DC	30 ... 60 V DC	42 ... 96 V DC	67.2 ... 154 V DC	
W x H x D in mm	32 x 130 x 125	48 x 130 x 125	48 x 130 x 125	48 x 130 x 125	
	48 V/24 V/5 A	48 V/48 V/5 A	60 ... 72 V/24 V/10 A	96 ... 110 V/24 V/10 A	
Type	QUINT-PS/48DC/24DC/5	QUINT-PS/48DC/48DC/5	QUINT-PS/60-72DC/24DC/10	QUINT-PS/96-110DC/24DC/10	
Order No.	2320144	2905008	2905009	2905010	
MINI DC/DC converters				C1 D2	Accessories*
					
Input	10 ... 32 V DC / 36 ... 75 V DC	10 ... 32 V DC / 36 ... 75 V DC	Single-phase, 10 ... 42 V AC		
W x H x D in mm	22.5 x 99 x 107	22.5 x 99 x 107	22.5 x 99 x 107		
	12 ... 24 V/24 V/1 A	48 ... 60 V/24 V/1 A	10 ... 42 V AC/15 ... 60 V DC/3 A*		
Type	MINI-PS-12-24DC/24DC/1	MINI-PS-48-60DC/24DC/1	MINI-PS-10-42AC/15-60DC/3		
Order No.	2866284	2866271	2320199		
	12 ... 24 V/5 ... 15 V/2 A	12 ... 24 V/48 V/0.7 A			
Type	MINI-PS-12-24DC/5-15DC/2	MINI-PS-12-24DC/48DC/0.7			
Order No.	2320018	2320021			

*AC power terminal for connection upstream of MINI DC/DC converters; the AC voltage of a transformer is rectified and filtered.

Product overview DC/DC converters, with protective coating

QUINT DC/DC converters, with protective coating				C1 D2	EX 19 5515	SFB TECHNOLOGY
						
Input	18 ... 32 V DC	18 ... 32 V DC	18 ... 32 V DC			
W x H x D in mm	32 x 130 x 125	48 x 130 x 125	82 x 130 x 125			
	24 V/24 V/5 A/CO	24 V/24 V/10 A/CO	24 V/24 V/20 A/CO			
Type	QUINT-PS/24DC/24DC/5/CO	QUINT-PS/24DC/24DC/10/CO	QUINT-PS/24DC/24DC/20/CO			
Order No.	2320542	2320555	2320568			

		
Input	42 ... 96 V DC	67.2 ... 154 V DC
B x H x T in mm	48 x 130 x 125	48 x 130 x 125
	60 ... 72 V/24 V/10 A/CO	96 ... 110 V/24 V/10 A/CO
Type	QUINT-PS/60-72DC/24DC/10/CO	QUINT-PS/96-110DC/24DC/10/CO
Order No.	2905011	2905012

DC/DC converters for frequency converters

These DC/DC converters are specifically designed for connection to frequency converters. In the event of a mains failure,

the DC intermediate circuit voltage of the inverter continues to supply all connected 24 V loads without interruption. The

maintenance-free buffer solution allows a controlled machine stop in the event of a mains failure.

TRIO POWER, 1 DC	
	
Input	450 V DC ... 840 V DC
W x H x D in mm	115 x 130 x 152.5
	24 V/20 A
Type	TRIO-PS/600DC/24DC/20
Order No.	2866530

QUINT POWER, 2 AC / 1 DC		SFB TECHNOLOGY
		
Input	2 x 360 ... 575 V AC, 450 ... 840 V DC	
W x H x D in mm	120 x 130 x 125	
	24 V/20 A	
Type	QUINT-PS/2AC/1DC/24DC/20	
Order No.	2320830	

DC/DC converters

UNO DC/DC converters

Supply your control cabinet directly from the photovoltaic system with the DC/DC converters from the UNO POWER range. As a result, you save on installation costs and increase system efficiency.

 Web code: [#0152](#)



Your advantages

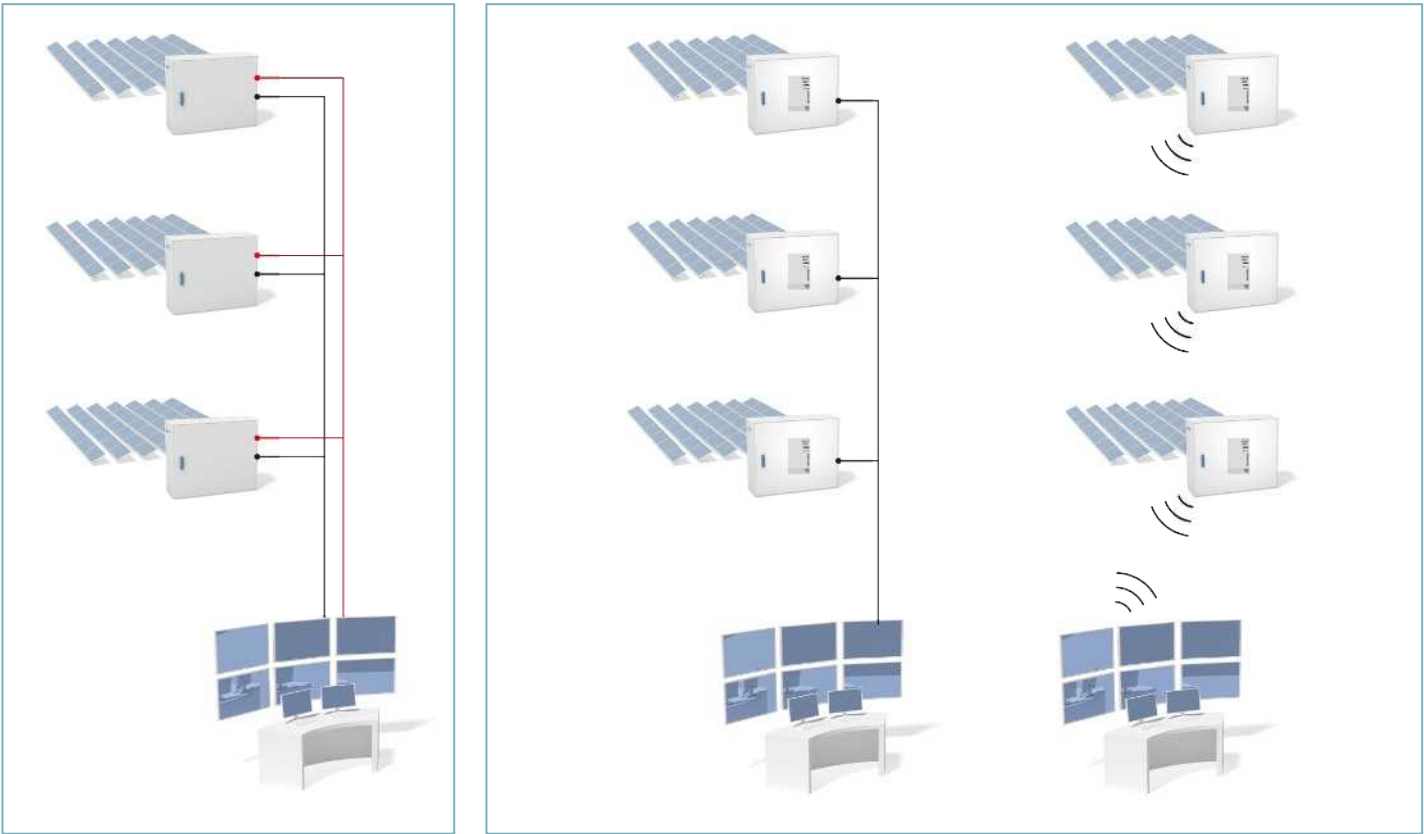
- ✓ Wide input voltage range of 300 V DC ... 1000 V DC
- ✓ Direct field installation possible, an AC connection is no longer necessary
- ✓ Simplified approval of the overall system, thanks to UL 1741 certification for the DC/DC converter
- ✓ Low space requirement in the control box, thanks to compact design and high degree of efficiency
- ✓ Simplified startup, thanks to LED function monitoring

Product overview UNO DC/DC converters

	UNO DC/DC converters
	
Input	350 ... 900 V DC
W x H x D in mm	55 x 90 x 84
	350 ... 900 DC/24 DC/60 W
Type	UNO-PS/350-900DC/24DC/60W
Order No.	2906300



Connection options for Combiner Boxes in photovoltaic systems



In the application shown, the Combiner Box is connected to a supply line (red, e.g. 230 V AC) and a signal line (black). Laying the lines involves significant installation costs.

UNO POWER devices allow direct connection to string voltages of up to 1000 V DC. This means that the Combiner Box is supplied directly from the photovoltaic panel, and additional installation costs are not incurred.

In a further expansion stage, the signal line can be replaced by a wireless connection.

Redundancy modules

Redundant power supply solutions are necessary in applications with the highest demands on operational safety. They ensure that the failure of one power supply unit does not result in system downtime.

A redundant system is the result of the parallel connection of two power supply units that are decoupled from one another. This decoupling via an active redundancy module or a simple diode ensures the high availability and productivity of your system.





Redundancy modules

Decoupling, monitoring, and control

The ACB Technology (Auto Current Balancing) of the QUINT ORING modules doubles the service life of redundantly operated power supplies by evenly utilizing the power supply units.

In a system consisting of two QUINT POWER power supplies and one QUINT ORING, the input voltage, output current, and decoupling path are monitored continuously so that a loss of redundancy can be reported early on.

 Web code: [#0153](#)

50 %
Power



Your advantages QUINT ORING

- ✓ Preventive function monitoring, through constant monitoring of the input voltage, output current, and decoupling section
- ✓ Consistent redundancy up to the consumer with two positive output terminals
- ✓ Service life doubled, thanks to uniform load distribution
- ✓ Energy savings of 70%, thanks to the use of MOSFETs
- ✓ Overvoltage protection limits surge voltages to 32 V

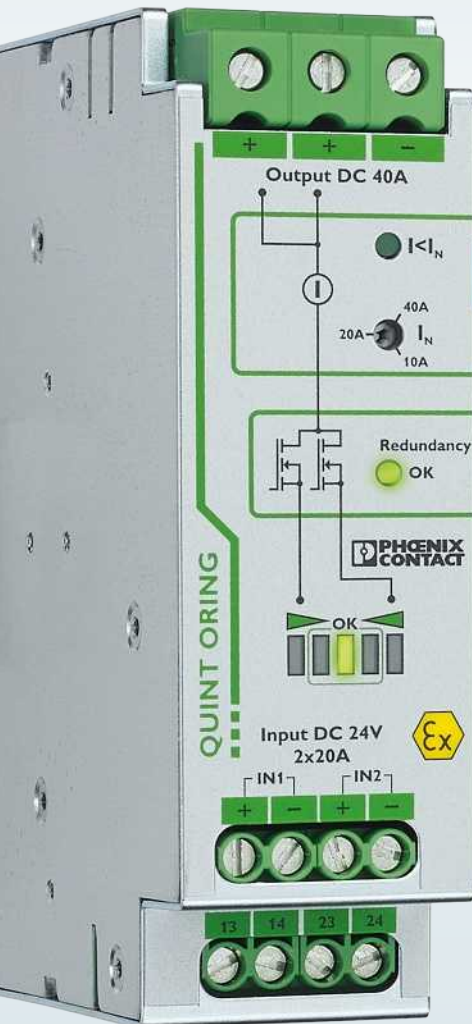
ACB Technology

As a result of asymmetries, the load is often supplied by just one power supply unit, while the other power supply unit runs in no-load operation. This results in a thermal load on the working power supply unit and therefore rapid aging. The ACB Technology ensures symmetrical loading of the two power supplies and therefore double the service life of the redundant system.

Designed by PHOENIX CONTACT

Auto Current Balancing Technology[®]

Designed by PHOENIX CONTACT

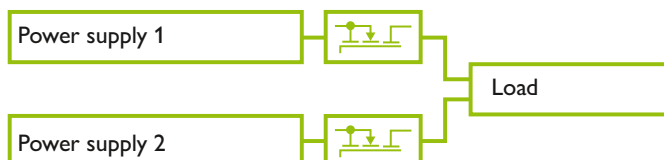


**50 %
Power**

Product overview redundancy modules

Decoupling and monitoring

Active, single-channel redundancy module for the separate structuring of a redundant system. In combination with the new QUINT POWER power supplies, your system is monitored continuously.



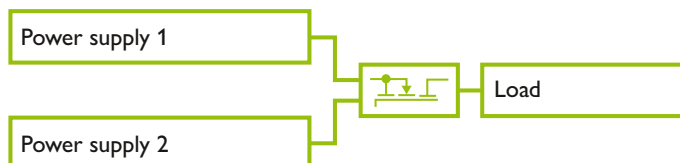
QUINT S-ORING C1 D2		
		
Input	12 ... 24 V DC	12 ... 24 V DC
W x H x D in mm	32 x 130 x 125	32 x 130 x 125
	12 ... 24 V/1 x 40 A	12 ... 24 V/1 x 40 A/+
Type	QUINT4-S-ORING/12-24DC/1x40	QUINT4-S-ORING/12-24DC/1x40/+
Order No.	2907752	2907753

The plus version for higher demands:

- OVP (overvoltage protection)
- Protective coating
- ATEX/IECEx

Decoupling, monitoring, and control

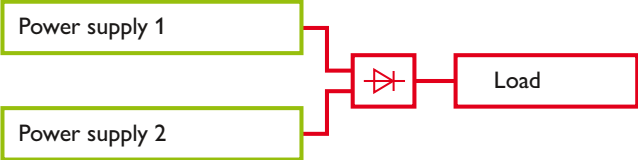
Active redundancy module for decoupling power supplies. With monitoring of the input voltage, wiring, and load current.



QUINT ORING C1 D2			Auto Current Balancing Technology [®] Designed by PHOENIX CONTACT
			
Input	18 ... 28 V DC	18 ... 28 V DC	18 ... 28 V DC
W x H x D in mm	32 x 130 x 125	38 x 130 x 125	66 x 130 x 125
	24 V/2 x 10 A/1 x 20 A	24 V/2 x 20 A/1 x 40 A	24 V/2 x 40 A/1 x 80 A
Type	QUINT-ORING/24DC/2x10/1x20	QUINT-ORING/24DC/2x20/1x40	QUINT-ORING/24DC/2x40/1x80
Order No.	2320173	2320186	2902879

Decoupling via diodes

Simple decoupling via diodes.



	QUINT DIODE		C1 D2
			
Input	10 ... 30 V DC	30 ... 56 V DC	
W x H x D in mm	50 x 130 x 125	50 x 130 x 125	
	12 ... 24 V/2 x 20 A/1 x 40	48 V/2 x 20 A/1 x 40	
Type	QUINT4-DIODE/12-24DC/2x20/1x40	QUINT4-DIODE/48DC/2x20/1x40	
Order No.	2907719	2907720	

	TRIO DIODE		UNO DIODE	STEP DIODE
				
Input	10 ... 30 V DC	10 ... 30 V DC	4.5 ... 30 V DC	4.5 ... 30 V DC
W x H x D in mm	35 x 130 x 115	41 x 130 x 115	22,5 x 90 x 84	18 x 90 x 61
	12 ... 24 V/2 x 10 A/1 x 20	12 ... 24 V/2 x 20 A/1 x 40	5 ... 24 V/2 x 10 A/1 x 20 A	5 ... 24 V/2 x 5 A/1 x 10 A
Type	TRIO2-DIODE/12-24DC/2x10/1x20	TRIO2-DIODE/12-24DC/2x20/1x40	UNO-DIODE/5-24DC/2x10/1x20	STEP-DIODE/5-24DC/2x5/1x10
Order No.	2907380	2907379	2905489	2868606

— Monitored
— Not monitored

Uninterruptible power supplies

Mains interruptions can have serious consequences. Do not take any risks. You can rely on our uninterruptible power supplies.

We provide the following solutions for optimum system availability, even in the event of a mains failure:

- DC und AC UPS modules with communication interfaces
- UPS modules with integrated energy storage system
- UPS modules with integrated power supply





Uninterruptible power supplies

IQ Technology for an intelligent UPS system

Superior system availability, thanks to IQ Technology:

- You know the state of charge and remaining runtime of your energy storage system
- You will be warned of pending failures at an early stage, making it possible to plan servicing
- You can maximize the service life of the energy storage system
- You can transmit all relevant information to your computer and superordinate controllers

 Web code: [#0154](#)

The first intelligent QUINT DC UPS for integration into established industrial networks

Interfaces

The QUINT DC UPS can be easily integrated into the following existing industrial networks via various interfaces:

- PROFINET
- EtherNet/IP
- EtherCAT

All network technologies, devices with USB interface, and devices without interface are available in all four performance classes (5 A, 10 A, 20 A, and 40 A).

2-port switch

Our QUINT DC UPS has a 2-port switch. The device can therefore be integrated flexibly into existing industrial networks.

Extended load management

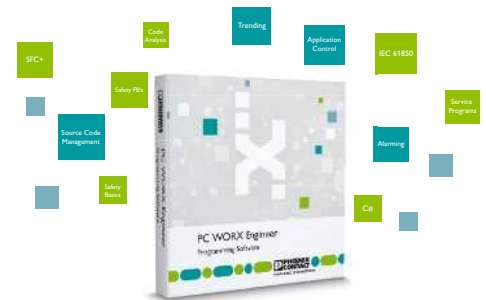
The extended load management system consists of the following functions:

- Energy monitoring – monitoring of input and output voltages and the associated currents
- PC shutdown function – reliable shutdown of your IPC in the event of a mains failure without data loss, and automatic restart of the IPC when the power returns
- Cold-start function – UPS startup even without mains power

Function blocks

So that the QUINT DC UPS can be started up quickly, we include the corresponding function blocks for the following engineering environments:

- PC Worx
- TIA-Portal
- Studio 5000
- TwinCAT



Device descriptions

If the appropriate function block for your application is not available, you can create your own custom function blocks using our device descriptions.

Intelligent charging

Adapts the charging current and thereby ensures the fastest possible recharging and availability.

Intelligent battery management SOH (State of Health)

Reports on the life remaining for the energy storage device, and warns of pending failures in good time.

Intelligent battery management SOC (State of Charge)

Describes the current state of charge and the remaining energy storage life.

Intelligent battery control

Detects the connected battery type and maximizes its remaining service life via an optimally adapted charging characteristic.

Interfaces

Easy integration into industrial networks:

- PROFINET
- EtherNet/IP
- EtherCAT
- USB

IQ Technology 
Designed by PHOENIX CONTACT

PROFI
NET

EtherNet/IP

EtherCAT

Uninterruptible power supplies

Intelligence in any combination

Create your own individual QUINT DC UPS solution – tailored to your application.

1. Choose your power supply
2. Choose your UPS module
3. Choose your energy storage system for a maximum service life or a long service life with long buffer times or for maximum buffer times

Intelligence for superior system availability

Task

Supply an industrial PC continuously with 24 V DC.

Previous solution

A UPS with 3.4 Ah buffers 24 V DC / 5 A for 20 minutes under ideal conditions. Can the energy storage system really bridge this amount of time? The state of charge, performance, and remaining runtime of the energy storage system are unknown.

Solution with QUINT UPS

The intelligent QUINT UPS determines all relevant energy storage system states. This ensures the crucial transparency required to guarantee the stability of the supply and optimum use of the energy storage system at all times.

The intelligent battery management detects the current state of charge of the connected energy storage and uses this to calculate the remaining runtime available.

The QUINT UPS indicates whether the remaining 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, via software or directly to superordinate controllers.



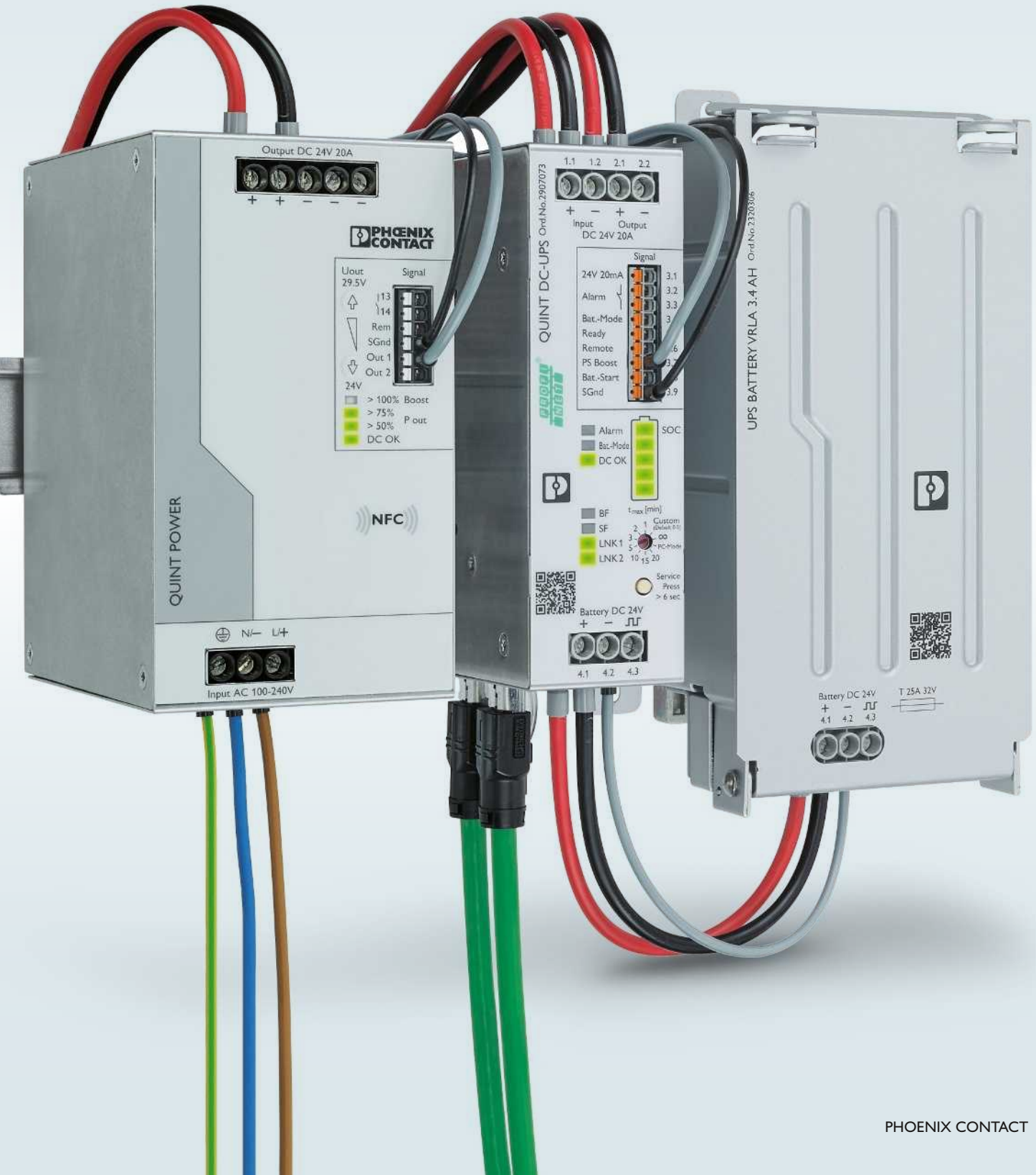
Power supply



UPS module



Energy storage system



Uninterruptible power supplies

QUINT UPS for DC and AC applications

The QUINT UPS for 24 V DC with output currents of 5 to 40 A is suitable for mains interruptions that last for up to several hours.

The QUINT UPS for AC applications delivers a pure sine curve at the output. The sine wave generated in battery operation is synchronized to the grid previously used for supply. Only one energy storage system is required to safeguard your system.

IQ Technology
Designed by PHOENIX CONTACT

i Web code: #1992

Substantial power reserve

- For mains and battery operation
- Power Boost static power reserve
- SFB Technology (Selective Fuse Breaking – for details on SFB Technology, refer to page 10)

Adaptive current management

- For fast recharging and high energy storage system availability



Easy integration into industrial networks thanks to interfaces

- PROFINET
- EtherNet/IP
- EtherCAT
- USB

Comprehensive signaling and configuration

- Floating relay contacts
- Signal contacts

Convection cooling

- Fan-free heat dissipation via convection cooling

Startup from the energy storage system

- Even without power supply input



- Can be switched in parallel**
- For redundancy and increased performance

i Web code: #1988

Seamless transition, thanks to online topology

- Classification in accordance with EN 62040-3: VFI-SS-111

USB interface

- For connection to industrial PCs and controllers

Optimum use of the buffer time and preventive monitoring of the energy storage system

- Intelligent battery management

Uninterruptible power supplies

Energy storage systems for QUINT UPS

With the energy storage systems for our modular system of uninterruptible power supplies, you will always have the optimum solution for your system.

- UPS-CAP for maximum service life
- UPS-BAT/LI-ION for a long service life
- UPS-BAT/VRLA-WTR for use in extreme ambient temperatures
- UPS-BAT/VRLA for maximum buffer times

Your advantages

- ✓ Fast installation, thanks to automatic detection of the energy storage and tool-free replacement during operation
- ✓ Maximum availability, thanks to constant communication with the QUINT UPS for continuous monitoring and intelligent management
- ✓ Extremely long service life, thanks to the optimum charging characteristic, depending on the technology and ambient conditions
- ✓ Immediate availability: all energy storage systems leave our warehouse fully charged



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

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

Type	Typical buffer time	Temperature	Service life at +20°C	Service life at +50°C	Charging cycles at +20°C	Weight (standardized)
UPS-CAP...	< 5 min	-40°C ... +60°C	> 20 years	5 years	> 500,000	0.4 kg
UPS-BAT/LI-ION...	> 40 min	-20°C ... +58°C	15 years	2 years	7,000	0.45 kg
UPS-BAT/VRLA-WTR...	> 5 h	-25°C ... +60°C	12 years	1.5 years	300	1.3 kg
UPS-BAT/VRLA...	> 8 h	0°C ... +40°C	6 ... 9 years	1 year	250	1 kg

Particularly good product characteristics



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

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



UPS-BAT/LI-ION...

- Long service life with long buffer times
- Lithium iron phosphate technology

UPS-CAP (capacitor)

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

Uninterruptible power supplies

QUINT DC UPS with IQ Technology – For industrial networks

The first 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 very powerful battery charger ensures superior system availability.

 Web code: #1992



Your advantages

- ✓ Evaluation of the 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, LiFePO4)
- ✓ Monitoring of output current and voltage, as well as manual connection and disconnection of the system
- ✓ SFB Technology selectively trips standard miniature circuit breakers; consumers connected in parallel continue working



EtherNet/IP

EtherCAT

USB 

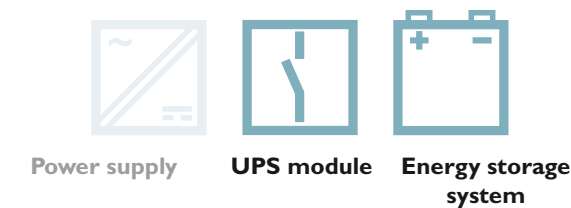
Product overview QUINT DC UPS uninterruptible power supplies

QUINT DC UPS					C1 D2 IQ Technology [®] Designed by PHOENIX CONTACT	
					New	New
W x H x D in mm	37 x 130 x 125	37 x 130 x 125	40 x 130 x 125	47 x 130 x 125		
	24 V/5 A/PN	24 V/10 A/PN	24 V/20 A/PN	24 V/40 A/PN		
Type PROFINET	QUINT4-UPS 24DC/24DC/5/PN	QUINT4-UPS 24DC/24DC/10/PN	QUINT4-UPS 24DC/24DC/20/PN	QUINT4-UPS 24DC/24DC/40/PN		
Order No.	2906993	2907068	2907073	2907079		
	24 V/5 A/EIP	24 V/10 A/EIP	24 V/20 A/EIP	24 V/40 A/EIP		
Type EtherNet/IP	QUINT4-UPS 24DC/24DC/5/EIP	QUINT4-UPS 24DC/24DC/10/EIP	QUINT4-UPS 24DC/24DC/20/EIP	QUINT4-UPS 24DC/24DC/40/EIP		
Order No.	2906994	2907069	2907074	2907080		
	24 V/5 A/EC	24 V/10 A/EC	24 V/20 A/EC	24 V/40 A/EC		
Type EtherCAT	QUINT4-UPS 24DC/24DC/5/EC	QUINT4-UPS 24DC/24DC/10/EC	QUINT4-UPS 24DC/24DC/20/EC	QUINT4-UPS 24DC/24DC/40/EC		
Order No.	2906996	2907070	2907076	2907081		
	24 V/5 A/USB	24 V/10 A/USB	24 V/20 A/USB	24 V/40 A/USB		
Type USB	QUINT4-UPS 24DC/24DC/5/USB	QUINT4-UPS 24DC/24DC/10/USB	QUINT4-UPS 24DC/24DC/20/USB	QUINT4-UPS 24DC/24DC/40/USB		
Order No.	2906991	2907067	2907072	2907078		
	24 V/5 A	24 V/10 A	24 V/20 A	24 V/40 A		
Type without interface	QUINT4-UPS/24DC/24DC/5	QUINT4-UPS/24DC/24DC/10	QUINT4-UPS/24DC/24DC/20	QUINT4-UPS/24DC/24DC/40		
Order No.	2906990	2907066	2907071	2907077		

QUINT DC UPS with dual output		IQ Technology [®] Designed by PHOENIX CONTACT	
			
W x H x D in mm	35 x 130 x 125		
	12 V/5 A, 24 V/10 A		
Type	QUINT-UPS/24DC/12DC/5/24DC/10		
Order No.	2320461		

Selection guide for QUINT DC UPS and energy storage system

Select your ideal combination of QUINT DC UPS and energy storage system here.

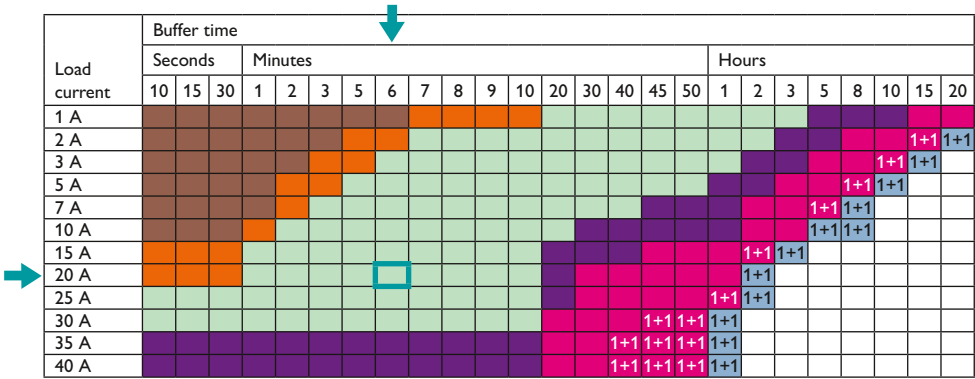


	UPS-CAP C1 D2		UPS-BAT/LI-ION C1 D2		UPS-BAT/VRLA-WTR C1 D2	
						
W x H x D in mm	126 x 130 x 126	150 x 130 x 126	135 x 202 x 110	264 x 224 x 197	172 x 177 x 178	358 x 174 x 169
	10 A / 10 kJ	20 A / 20 kJ	120 Wh	924 Wh	13 Ah	26 Ah
Type	UPS-CAP/ 24DC/10A/10KJ	UPS-CAP/ 24DC/20A/20KJ	UPS-BAT/LI-ION/ 24DC/120WH	UPS-BAT/LI-ION/ 24DC/924WH	UPS-BAT/ VRLA-WTR/ 24DC/13AH	UPS-BAT/ VRLA-WTR/ 24DC/26AH
Order No.	2320377	2320380	2320351	2908232	2320416	2320429

Buffer times for your QUINT DC UPS with the following energy storage systems: CAP, LI-ION, and VRLA-WTR

Select your energy storage system for 24 V DC applications here. Example: 20 A is to be buffered for 6 minutes.

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



QUINT DC UPS, 1~					C1 D2 IQ Technology[®] Designed by PHOENIX CONTACT
					
	New	New	New	New	
W x H x D in mm	35 x 130 x 125	35 x 130 x 125	40 x 130 x 125	47 x 130 x 125	35 x 130 x 125
	24 V/5 A	24 V/10 A	24 V/20 A	24 V/40 A	12 V/5 A, 24 V/10 A
Type	QUINT4-UPS 24DC/24DC/5...	QUINT4-UPS 24DC/24DC/10...	QUINT4-UPS 24DC/24DC/20...	QUINT4-UPS 24DC/24DC/40...	QUINT-UPS 24DC/12DC/5/24DC/10
Recommended energy storage system UPS-BAT/...	LI-ION VRLA-WTR VRLA/1.3 ... 12 AH (max. 30 AH)	LI-ION VRLA/1.3 ... 38 AH (max. 60 AH)	LI-ION VRLA/3.4 ... 38 AH (max. 100 AH)	LI-ION 924WH VRLA-WTR VRLA/7.2 ... 38 AH (max. 100 AH)	CAP LI-ION VRLA/1.3 ... 38 AH (max. 60 AH)

UPS-BAT/VRLA					C1 D2
					
W x H x D in mm	54 x 157 x 113	85 x 191 x 110	135 x 202 x 110	202 x 202 x 110	330 x 221 x 197
	1.3 Ah	3.4 Ah	7.2 Ah	12 Ah	38 Ah
Type	UPS-BAT/VRLA/ 24DC/1.3AH	UPS-BAT/VRLA/ 24DC/3.4AH	UPS-BAT/VRLA/ 24DC/7.2AH	UPS-BAT/VRLA/ 24DC/12AH	UPS-BAT/VRLA/ 24DC/38AH
Order No.	2320296	2320306	2320319	2320322	2320335

Buffer times for your QUINT DC UPS with VRLA energy storage systems

Select your energy storage system for 24 V DC applications here. Example: 7 A is to be buffered for one hour.

 QUINT-UPS/24DC/24DC/10A and
 UPS-BAT/VRLA/24DC/12AH

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

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

Selection guide for QUINT AC UPS/500VA and energy storage system

Select your ideal combination of QUINT AC UPS/500VA and energy storage system here.



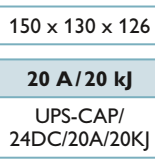
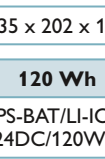
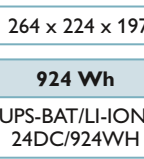
Power supply



UPS module



Energy storage system

	UPS-CAP C1 D2	UPS-BAT/LI-ION C1 D2	UPS-BAT/VRLA-WTR C1 D2
			
W x H x D in mm	150 x 130 x 126	135 x 202 x 110	264 x 224 x 197
			
			

QUINT AC UPS C1 D2 IQ Technology [®] Designed by PHOENIX CONTACT	
	
W x H x D in mm	125 x 130 x 125
400 W / 500 VA	
Type	QUINT-UPS/1AC/1AC/500VA
Order No.	2320270
Recommended energy storage system 1 x UPS-BAT/...	CAP/20 A LI-ION VRLA-WTR VRLA/3.4 ... 38 AH

i Web code: #1988

UPS-BAT/VRLA C1 D2				
				
W x H x D in mm	85 x 191 x 110	135 x 202 x 110	202 x 202 x 110	330 x 221 x 197
	3.4 Ah	7.2 Ah	12 Ah	38 Ah
Type	UPS-BAT/VRLA/ 24DC/3.4AH	UPS-BAT/VRLA/ 24DC/7.2AH	UPS-BAT/VRLA/ 24DC/12AH	UPS-BAT/VRLA/ 24DC/38AH
Order No.	2320306	2320319	2320322	2320335

Buffer times for QUINT AC UPS/500VA with VRLA energy storage systems

Select your energy storage system for your QUINT AC UPS/500VA (120 / 230 V application).

Example: 125 W is to be buffered for one hour.

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

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

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

Selection guide for QUINT AC UPS/1kVA and energy storage system

Select your ideal combination of QUINT AC UPS/1kVA and energy storage system here.



Power supply



UPS module



Energy storage system

	UPS-BAT/LI-ION		UPS-BAT/VRLA-WTR	
				
W x H x D in mm	135 x 202 x 110	264 x 224 x 197	172 x 177 x 178	358 x 174 x 169
	120 Wh	924 Wh	13 Ah	26 Ah
Type	UPS-BAT/LI-ION/ 24DC/120WH	UPS-BAT/LI-ION/ 24DC/924WH	UPS-BAT/VRLA-WTR/ 24DC/13AH	UPS-BAT/VRLA-WTR/ 24DC/26AH
Order No.	2320351	2908232	2320416	2320429

Buffer times for your QUINT AC UPS/1kVA with the following energy storage systems: CAP, LI-ION, and VRLA-WTR

Select your energy storage system for your QUINT AC UPS/1kVA (120 / 230 V application).
Example: 400 W is to be buffered for three hours.



→ QUINT4-UPS/1AC/1AC/1KVA and
UPS-BAT/LI-ION/24DC/924WH



Power	Buffer time																			
	Minutes													Hours						
	2	3	4	5	8	10	15	20	25	30	40	50	1	1.5	2	3	4	6	9	10
100 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
200 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
300 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
400 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
500 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
600 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
700 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
800 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
900 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1

	QUINT AC UPS  IQ Technology Designed by PHOENIX CONTACT
	
W x H x D in mm	290 x 130 x 125
	900 W/1 kVA
Type	QUINT4-UPS/1AC/1AC/1KVA
Order No.	2320283
Recommended energy storage system 2 x UPS-BAT/...	LI-ION VRLA-WTR VRLA/3.4 ... 38 AH

 Web code: #1988

*Approval in preparation

	UPS-BAT/VRLA				
					
W x H x D in mm	85 x 191 x 110	135 x 202 x 110	202 x 202 x 110	330 x 221 x 197	
	3.4 Ah	7.2 Ah	12 Ah	38 Ah	
Type	UPS-BAT/VRLA/ 24DC/3.4AH	UPS-BAT/VRLA/ 24DC/7.2AH	UPS-BAT/VRLA/ 24DC/12AH	UPS-BAT/VRLA/ 24DC/38AH	
Order No.	2320306	2320319	2320322	2320335	

Buffer times for your QUINT AC UPS/1kVA with VRLA energy storage systems:

Select your energy storage system for your QUINT AC UPS/1kVA (120-/230-V application).

Example: 400 W is to be buffered for 50 minutes.

Power	Minutes												Hours									
	2	3	4	5	8	10	15	20	25	30	40	50	1	1.5	2	3	4	6	9	10		
100 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
200 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
300 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
400 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
500 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
600 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
700 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
800 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
900 W	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1

→  QUINT4-UPS/1AC/1AC/1KVA and
 →  UPS-BAT/VRLA/24DC/12AH

1+1: For the QUINT AC UPS/1kVA, two energy storage systems of the same capacity are always required.
 The data is based on an ambient temperature of +20°C.

Uninterruptible power supplies

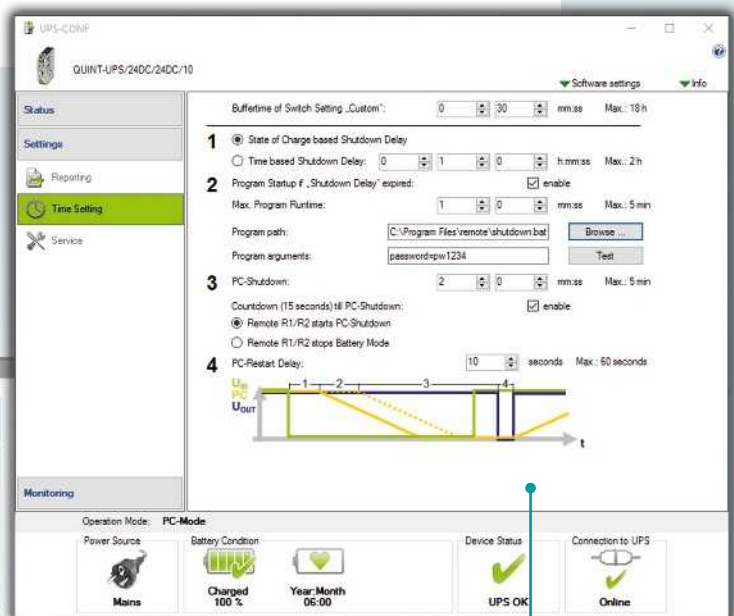
QUINT UPS – Intelligent and communicative

With the QUINT DC UPS for integration into existing industrial networks, you are ready for Industrie 4.0.

With the QUINT DC UPS and the integrated interfaces for PROFINET, EtherNet/IP, EtherCAT, and USB, monitoring, configuration, and shutting the system down in a safe state are possible at all times and from anywhere in the world.

Configuration

Flexible adaptation of QUINT UPS behavior to individual requirements.



Integrated data recorder

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

The software is available free of charge as a download on the Phoenix Contact website under "Downloads" on the QUINT-UPS/... product pages

Preventive function monitoring

All relevant operating parameters are displayed graphically, and important messages appear in the foreground.

Signaling

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

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



Intelligent monitoring of the energy storage system

- Automatic detection of the battery type connected and maximization of the service life, thanks to optimally adjusted charging characteristics
- Adapting the charging current ensures the quickest possible recharging and availability of the energy storage system

USB interface is ideal for

- Monitoring and configuration with UPS-CONF
- Safe shutdown of industrial PCs with optimum utilization of the energy storage
- Automatic boot mode when mains returns

User-friendly integration into your network

Function blocks

We include the appropriate function blocks for the following engineering environments with every delivery:

- PC Worx
- TIA Portal
- Studio 5000
- TwinCAT

Device descriptions

Create your own custom function blocks for your controller using our device descriptions.

The library is available free of charge on the Phoenix Contact website under "Downloads" on the QUINT-UPS/... product pages.



Selection guide for QUINT UPS modules with integrated energy storage system

QUINT UPS

Very easy to install in existing systems. Utilize the benefits of IQ Technology and the minimum wiring outlay. The maintenance-free energy storage system includes lead AGM technology.

QUINT BUFFER

For bridging failures in the seconds range.

QUINT CAP

For cyclic failures of up to 30 seconds. Your PC can be shut down conveniently thanks to the USB interface.

Both buffer modules are suitable for the DIN rail and combine an electronic switch-over unit and maintenance-free, capacitor-based energy storage in the same housing.

 Web code: [#1989](#)

	QUINT UPS, 1~   IQ Technology TM Designed by PHOENIX CONTACT		QUINT BUFFER  	
				
Input	18 ... 30 V DC	18 ... 30 V DC	22.5 ... 30 V DC	22.5 ... 30 V DC
W x H x D in mm	88 x 138 x 125	120 x 169 x 125	57 x 130 x 125	73 x 130 x 125
	24 DC/5 A/1.3 Ah	24 DC/10 A/3.4 Ah	24 V/20 A	24 V/40 A
Type	QUINT-UPS/ 24DC/24DC/5/1.3AH	QUINT-UPS/ 24DC/24DC/10/3.4AH	QUINT4-BUFFER/ 24DC/20	QUINT4-BUFFER/ 24DC/40
Order No.	2320254	2320267	2907913	2908283
Energy storage system	Lead AGM technology	Lead AGM technology	Capacitor-based	Capacitor-based
Information	Integrated temperature sensor optimizes charging currents, thereby increasing the service life		Energy storage system is maintenance-free	

Buffer times for QUINT UPS and QUINT BUFFER

Example: 5 A is to be buffered for 20 minutes.



→ QUINT4-UPS/24DC/24DC/10/3.4AH

	Buffer time																													
	Seconds											Minutes															Hours			
Power	0.2	0.4	0.5	1	1.5	2	4	6	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																														
20 A																														
30 A																														
40 A																														



Power supply



UPS module



Energy storage
system

	QUINT CAP		C1 D2 SFB TECHNOLOGY	Accessories
				
Input	22.5 ... 30 V DC		22.5 ... 30 V DC	
W x H x D in mm	94 x 130 x 125		118 x 130 x 125	Length: 3 m
	24 DC/5 A	24 DC/10 A	USB data cable	
Type	QUINT4-CAP/24DC/5/4KJ		QUINT4-CAP/24DC/10/8KJ	
Order No.	2320539		2320571	
Information	Capacitor-based energy storage system Ultra-CAP is maintenance-free		For communication between UPS module and UPS-CONF	

Buffer times for QUINT CAP

Example: 5 A is to be buffered for
40 seconds.

→  →
QUINT4-CAP/24DC/10/8KJ

Load current	Buffer time					Minutes			
	Seconds					1	2	3	5
1 A									
2.5 A									
5 A									
6.25 A									
7.5 A									
10 A									
12.5 A									

Selection guide for UPS modules with integrated energy storage system

Particularly space-saving

UPS module and energy storage system combined in one housing. Only a power supply needs to be connected upstream.

The energy storage systems can of course be replaced quickly and easily when they reach the end of their service life.

UNO UPS

Compact and narrow, it ensures long buffer times thanks to the integrated lead AGM energy storage system.

STEP UPS

With a suitable power supply connected upstream, you only need a minimal space of just 198 mm on the DIN rail.

TRIO AC UPS

The TRIO AC UPS with Push-in Technology for the DIN rail saves space and reliably supplies your AC loads. It delivers a pure sine curve at the output. The sine wave generated in battery operation is synchronized to the grid previously used for supply. Connected industrial PCs can be shut down via the integrated USB interface.

i Web code: [#1990](#)

i Web code: [#1987](#)

	TRIO AC UPS, 1~		C1 D2	Accessories
				
Input	184 ... 264 V AC	96 ... 138 V AC		
W x H x D in mm	210 x 169 x 139	210 x 169 x 139		Length: 3 m
	230 V/750 VA	120 V/750 VA		USB data cable
Type	TRIO-UPS-2G/ 1AC/1AC/230V/750VA	TRIO-UPS-2G/ 1AC/1AC/120V/750VA		MINI-SCREW- USB-DATACABLE
Order No.	2905909	2905908		2908217
Information	Energy storage system with lead AGM technology	Energy storage system with lead AGM technology		For communication between UPS module and UPS-CONF

Buffer times for TRIO AC UPS

1+1: An additional energy storage system of the same capacity (3.4 AH) of type UPS-BAT/VRLA/24DC/3.4AH ([2320306](#)) or QUINT-BAT/24DC/3.4AH ([2866349](#)) is required in this case.

The data is based on an ambient temperature of +20°C.

Power	Buffer time												Hours	
	Minutes												1	1.5
50 W													1+1	1+1
100 W													1+1	1+1
150 W													1+1	1+1
200 W														
250 W														
300 W														
400 W														
500 W														
600 W														



Power supply



UPS module



Energy storage system

	UNO UPS, 1~	STEP UPS 1~	
			
Input	23 ... 30 V DC	22.5 ... 29.5 V DC	10 ... 16.5 V DC
W x H x D in mm	110 x 90 x 90	108 x 90 x 61	108 x 90 x 61
	24 V / 60 W	24 DC / 24 DC / 3 A	12 DC / 12 DC / 4 A
Type	UNO-UPS/24DC/24DC/60W	STEP-UPS/24DC/24DC/3	STEP-UPS/12C/12DC/4
Order No.	2905907	2868703	2868693
Energy storage system	Lead AGM technology	Lithium-polymer technology	Lithium-polymer technology

Buffer times for UNO UPS and STEP UPS

Example: 2.5 A is to be buffered for 10 minutes.

→  STEP-UPS/24DC/24DC/3A

→  STEP-UPS/24DC/24DC/3A

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																										
1.5 A																										
2 A																										
2.5 A																										
3 A																										
4 A																										

Selection guide for UPS modules with integrated power supply

Particularly space-saving

UPS module and power supply combined in one housing. Only one energy storage system is required to complete the UPS system.

 Web code: [#1991](#)

MINI UPS

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

TRIO UPS

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



Power supply



UPS module



Energy storage system

MINI UPS, 1~ C1 D2		
		
Input	85 ... 264 V AC, 100 ... 350 V DC	85 ... 264 V AC, 100 ... 350 V DC
W x H x D in mm	67.5 x 99 x 107	67.5 x 99 x 107
	24 DC / 2 A	12 DC / 4 A
Type	MINI-DC-UPS/24DC/2	MINI-DC-UPS/12DC/4
Order No.	2866640	2866598

Energy storage systems for MINI UPS C1 D2		
		
Energy storage system	Lead AGM technology	Lead AGM technology
W x H x D in mm	67.5 x 99 x 107	52 x 130 x 110
	24 DC / 0.8 Ah	24 DC / 1.3 Ah
Type	MINI-BAT/24DC/0.8AH	MINI-BAT/24DC/1.3AH
Order No.	2866666	2866417
	12 DC / 1.6 Ah	12 DC / 2.6 Ah
Type	MINI-BAT/12DC/1.6AH	MINI-BAT/12DC/2.6AH
Order No.	2866572 2x	2866569 2x

Buffer times for MINI DC UPS

Select your MINI BAT for your MINI UPS here.

Example: 1 A is to be buffered for 20 minutes.

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



MINI-DC-UPS/24DC/2 and
MINI-BAT/24DC/0.8AH

	TRIO DC UPS, 1~		TRIO DC UPS, 3~	Accessories
	 New	 New	 New	
Input	100 ... 240 V AC, 110 ... 250 V DC	100 ... 240 V AC, 110 ... 250 V DC	3 x 400 ... 500 V AC 2 x 400 ... 500 V AC	For communication between UPS module and UPS-CONF, length 3 m
W x H x D in mm	60 x 130 x 115	68 x 130 x 160	88 x 130 x 160	
	24 DC/5 A	24 DC/10 A	24 DC/20 A	USB data cable
Type	TRIO-UPS-2G/1AC/24DC/5	TRIO-UPS-2G/1AC/24DC/10	TRIO-UPS-2G/3AC/24DC/20	MINI-SCREW- USB-DATACABLE
Order No.	2907160	2907161	2906367	2908217

UPS-BAT/VRLA						C1 D2
						
W x H x D in mm	54 x 157 x 113	85 x 191 x 110	135 x 202 x 110	202 x 202 x 110	330 x 221 x 197	
	1.3 Ah	3.4 Ah	7.2 Ah	12 Ah	38 Ah	
Type	UPS-BAT/VRLA/ 24DC/1.3AH	UPS-BAT/VRLA/ 24DC/3.4AH	UPS-BAT/VRLA/ 24DC/7.2AH	UPS-BAT/VRLA/ 24DC/12AH	UPS-BAT/VRLA/ 24DC/38AH	
Order No.	2320296	2320306	2320319	2320322	2320335	

Buffer times for TRIO DC UPS with VRLA energy storage system

Select your energy storage system for your TRIO DC UPS.

Example: 10 A is to be buffered for 10 minutes.



TRIO-UPS-2G/1AC/24DC/10 and
UPS-BAT/VRLA/24DC/3.4AH

Load current	Seconds			Minutes																	Hours							
	10	15	30	1	2	3	5	6	7	8	9	10	20	30	40	45	50	1	2	3	5	8	10	15	20			
1 A																												
2 A																												
3 A																												
5 A																												
7 A																												
10 A																												
15 A																												
20 A																												

Product overview accessories

	Mounting on S7-300 rail		Mounting on level surfaces	
				
	QUINT-PS adapter S7/1	QUINT-PS adapter S7/2	Adapter UWA 182/52	Adapter UWA 130
Order No.	2938196	2938206	2938235	2901664
Information	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 QUINT4-UPS QUINT4-BUFFER	For: QUINT4-PS QUINT4-UPS QUINT-PS/1AC/24DC/40 QUINT-UPS/1AC/1AC/500VA

	Programming adapter	Cooling fan
		
	TWN4 MIFARE NFC USB ADAPTER	Fan for QUINT, QUINT-PS/FAN/4
Order No.	2909681	2320076
Description	• Programming adapter for near field communication (NFC) • With USB interface • For configuring NFC-capable QUINT POWER power supplies wirelessly	• In 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

Product overview accessories for uninterruptible power supplies

Accessories for QUINT UPS and TRIO UPS

				
	Programming adapter	RS-232 data cable	Open End data cable	MINI DIN data cable
Type	IFS-BT-PROG-ADAPTER	IFS-RS232-DATACABLE	IFS-OPEN-END-DATACABLE	IFS-MINI-DIN-DATACABLE
Order No.	2905872	2320490	2320450	2320487
Description	Bluetooth programming adapter for wireless communication between UPS module and UPS-CONF	- Modbus communication with RS-232 interface - COM server from Phoenix Contact for Ethernet communication - Address superordinate controllers such as Inline controllers (ILCs) or Remote Field Controllers (RFCs) directly - Use the Phoenix Contact Inline controller as a gateway and access other communication protocols - Length: 2 m	- Open cable for flexible communication - Length: 2 m	- Direct communication with the Inline controller (ILC) from the Phoenix Contact Inline system (100 series) - Length: 2 m

Accessories for QUINT UPS and TRIO UPS

					
	Software	USB data cable	Memory block	Memory block	FL COMSERVER UNI 232/422/485
Type	UPS-CONF	IFS-USB-DATACABLE	IFS-CONFSTICK	IFS-CONFSTICK-L	
Order No.	2320403	2320500	2986122	2901103	2313452
Description	Available free of charge on the Phoenix Contact website under "Downloads" on the QUINT-UPS/... product pages.	- For communication between UPS module and UPS-CONF - Length: 3 m	- For saving and transferring configured values to other QUINT UPS modules or for use as a service stick - With lock - Can remain in the UPS	- For saving and transferring configured values to other QUINT UPS modules or for use as a service stick - Without lock	- Integration of serial RS-232, RS-422, and RS-485 interfaces - For machine and system access via Ethernet network

Accessories for uninterruptible power supplies

	Energy storage system mounting		Fuses for AC UPS	
				
	BATTERY MOUNTING KIT	BATTERY MOUNTING CASE	FUSE 40 A/32 V ATOF	FUSE 10 A/400 V GRL
Order No.	2320788	2320458	2908357	2908358
Information	For: UPS-BAT/VRLA/24DC/38AH UPS-BAT/VRLA-WTR/24DC/13AH UPS-BAT/VRLA-WTR/24DC/26AH UPS-BAT/LI-ION/24DC/924WH	For: UPS-BAT/VRLA/24DC/38AH UPS-BAT/VRLA-WTR/24DC/13AH UPS-BAT/VRLA-WTR/24DC/26AH UPS-BAT/LI-ION/24DC/924WH	For: TRIO-UPS-2G/1AC/1AC/230V/750VA TRIO-UPS-2G/1AC/1AC/120V/750VA	For: TRIO-UPS-2G/1AC/1AC/230V/750VA TRIO-UPS-2G/1AC/1AC/120V/750VA QUINT-UPS/1AC/1AC/500VA

Fuses for energy storage system UPS-BAT			
			
	FUSE 15 A/32 V FK1	FUSE 25 A/32 V ATOF	FUSE 30 A/32 V ATOF
Order No.	2908360	2908366	2908365
Information	For: UPS-BAT/VRLA/24DC/1.3AH	For: UPS-BAT/VRLA/24DC/3.4AH UPS-BAT/VRLA/24DC/7.2AH UPS-BAT/VRLA/24DC/12AH UPS-BAT/VRLA/24DC/38AH UPS-BAT/VRLA-WTR/24DC/13AH UPS-BAT/VRLA-WTR/24DC/26AH UPS-BAT/LI-ION/24DC/924WH	For: UPS-BAT/LI-ION/24DC/120WH

Fuses for energy storage system MINI-BAT and UNO-UPS				
				
	FUSE 5 A/32 V FK1	FUSE 15 A/32 V FKS	FUSE 10 A/32 V FK1	FUSE 25 A/32 V FKS
Order No.	2908367	2908361	2908364	2908363
Information	For: MINI-BAT/24DC/0.8AH UNO-UPS/24DC/24DC/60W	For: MINI-BAT/24DC/1.3AH	For: MINI-BAT/12DC/1.6AH	For: MINI-BAT/12DC/2.6AH

Accessories for uninterruptible power supplies

	Replacement batteries for UPS-BAT/VRLA		Replacement batteries for UPS-BAT/VRLA/WTR
			
	BAT-KIT 2X12V/1.3AH	BAT-KIT 2X12V/38AH	BAT-KIT-WTR 2X12V/13AH
Order No.	2908665	2908237	2908368
	BAT-KIT 2X12V/3.4AH		BAT-KIT-WTR 2X12V/26AH
Order No.	2908233		2908369
	BAT-KIT 2X12V/7.2AH		
Order No.	2908234		
	BAT-KIT 2X12V/12AH		
Order No.	2908235		

Approvals for QUINT POWER

		UL							CSA	Ship							EX											
		CE	UL/C-UL Listed 61010		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	DNV GL Group	ABS - American Bureau of Shipping	BV - Bureau Veritas	LR - Lloyd's Register	NK - Nippon Kaiji Kyokai	RINA	ATEX	IEC Ex	DeviceNet™	SEMI F47-0706 Compliance	CB Scheme	Medical stand. IEC 60601, 2 x MOOP	Railway standard EN 50155	EAC	Startup at -40°C	Installation height
QUINT POWER power supplies with SFB Technology																												
QUINT4-PS 1AC/24DC/5	2904600	•			•	•	•			•	•	•	•	*	•							•	•			•	•	c
QUINT4-PS 1AC/24DC/10	2904601	•			•	•	•			•	•	•	•	*	•							•	•			•	•	c
QUINT4-PS 1AC/24DC/20	2904602	•			•	•	•			•	•	•	•	*	•							•	•			•	•	c
QUINT-PS/1AC/24DC/40	2866789	•		•		•	•			•	•	•	•	•	•	•	•	•				•	•			•	•	b
QUINT-PS/1AC/24DC/3.5	2866747	•		•		•	•			•	•	•	•	•	•	•	•	•			•	•	•	•		•		c
QUINT4-PS/1AC/12DC/15	2904608	•			•	•	•			•		*	*	*	*							•	•			•	•	c
QUINT-PS/1AC/12DC/20	2866721	•		•		•	•			•	•											•	•	•		•	•	d
QUINT4-PS/1AC/48DC/5	2904610	•			•	•	•			•		*	*	*	*							•	•			•	•	c
QUINT4-PS/1AC/48DC/10	2904611	•			•	•	•			•	•	•	•	*	•							•	•			•	•	c
QUINT-PS/1AC/48DC/20	2866695	•		•		•	•			•	•	•										•				•	•	d
QUINT4-PS 3AC/24DC/5	2904620	•			•	•	•			•	•	•	•	*	•							•	•			•	•	c
QUINT4-PS 3AC/24DC/10	2904621	•			•	•	•			•	•	•	•	*	•							•	•			•	•	c
QUINT4-PS 3AC/24DC/20	2904622	•			•	•	•			•	•	•	•	*	•							•	•			•	•	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
QUINT POWER power supplies < 100 W																												
QUINT4-PS 1AC/24DC/1.3 SC	2904597	•	•				*	•				*										•	•			•	•	c
QUINT4-PS 1AC/24DC/2.5 SC	2904598	•	•				*	•				*										•	•			•	•	c
QUINT4-PS 1AC/24DC/3.8 SC	2904599	•	•				*	•				*										•	•			•	•	c
QUINT4-PS 1AC/24DC/1.3 PT	2909575	•	•				*	•				*										•	•			•	•	c
QUINT4-PS 1AC/24DC/2.5 PT	2909576	•	•				*	•				*										•	•			•	•	c
QUINT4-PS 1AC/24DC/3.8 PT	2909577	•	•				*	•				*										•	•			•	•	c

* Approval in preparation

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" on the relevant product pages.

Approvals for TRIO POWER

		UL							CSA		Ship						EX								
		CE	UL/C-UL Listed 61010	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	DNV GL Group	ABS - American Bureau of Shipping	BV - Bureau Veritas	LR - Lloyd's Register	NK - Nippon Kaiji Kyokai	RINA	ATEX	IEC Ex							
TRIO POWER power supplies																									
TRIO-PS-2G/1AC/24DC/3/C2LPS	2903147	•			•	•	•	•			•								•	•			•		c
TRIO-PS-2G/1AC/24DC/5	2903148	•			•	•	•				•								•	•			•		c
TRIO-PS-2G/1AC/24DC/5/B+D	2903144	•			•	•					•									•			•		c
TRIO-PS-2G/1AC/24DC/10	2903149	•			•	•	•				*								•	•			•	•	c
TRIO-PS-2G/1AC/24DC/10/B+D	2903145	•			•	•					•									•			•		c
TRIO-PS-2G/1AC/24DC/20	2903151	•			•	•	•				*								•	•			•	•	b
TRIO-PS-2G/1AC/12DC/5/C2LPS	2903157	•			•	•	•	•												•			•		c
TRIO-PS-2G/1AC/12DC/10	2903158	•			•	•	•													•			•		c
TRIO-PS-2G/1AC/48DC/5	2903159	•			•	•	•													•			•		c
TRIO-PS-2G/1AC/48DC/10	2903160	•			•	•	•													•			•		c
TRIO-PS-2G/3AC/24DC/5	2903153	•			•	•	•				•									•			•		c
TRIO-PS-2G/3AC/24DC/10	2903154	•			•	•	•				•									•			•	•	c
TRIO-PS-2G/3AC/24DC/20	2903155	•			•	•	•				•									•			•	•	c
TRIO-PS-2G/3AC/24DC/40	2903156	•			•	•	•													•			•		b
TRIO-PS-2G/3AC/150DC/6	2909900	•	•																	•			•		b

* Approval in preparation

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

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Approvals for UNO POWER, MINI POWER, and STEP POWER

		UL						CSA		Ship						EX											
		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	DNV GL Group	ABS - American Bureau of Shipping	BV - Bureau Veritas	LR - Lloyd's Register	NK - Nippon Kaiji Kyokai	RINA	ATEX	IEC Ex	DeviceNet™	SEMI F47-0706 Compliance Certificate PQ Star	CB Scheme	Medical stand. IEC 60601, 2 x MOOP	Railway standard EN 50155, 50121-4	EAC	Startup at -40°C	Installation height	
UNO POWER power supplies																											
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	
STEP POWER power supplies																											
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/1AC/5DC/2	2320513	•		•	•	•	•														•			•		b	
STEP-PS/1AC/5DC/6.5	2868541	•		•	•	•	•			•		•			•						•			•	•	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	
STEP-PS/1AC/15DC/4	2868619	•		•	•	•	•			•		•			•						•			•	•	c	
STEP-PS/1AC/48DC/2	2868680	•		•	•	•	•			•		•			•						•			•	•	d	
STEP-PS/48AC/24DC/0.5	2868716	•		•	•	•	•														•			•	•	b	
STEP-PS/277AC/24DC/3.5	2904945	•		•	•	•	•														•			•		a	

Approvals for power supplies for frequency converters and DC/DC converters

		UL						CSA	Ship						EX												
		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	DNV GL Group	ABS - American Bureau of Shipping	BV - Bureau Veritas	LR - Lloyd's Register	NK - Nippon Kaiji Kyokai	RINA	ATEX	IEC Ex	DeviceNet™	SEMI F47-0706 Compliance Certificate PQ Star	CB Scheme	Medical stand. IEC 60601, 2 x MOOP	Railway standard EN 50155, 50121-4	EAC	EN 50121	Startup at -40°C	Installation height	
Power supplies for frequency converters																											
QUINT-PS/2AC/1DC/24DC/20	2320830	•		•	•																			•		e	
TRIO-PS/600DC/24DC/20	2866530	•		•	•																			•		e	
DC/DC converters																											
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
UNO-PS/350-900DC/24DC/60W	2906300	•																		•				•	•		c
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	•		•	•															•				•			d

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

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Approvals for redundancy modules and energy storage systems

		UL					CSA		Ship					EX											
		CE	UL Listed UL 508	UL/C-UL Listed UL 508	UL/C-UL 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	DNV GL Group	ABS - American Bureau of Shipping	BV - Bureau Veritas	LR - Lloyd's Register	NK - Nippon Kaiji Kyokai	RINA	ATEX	IEC Ex	DeviceNet™	SEMI F47-0706 Compliance Certificate PQ Star	CB Scheme	Medical standard IEC 60601	EAC	Startup at -40°C	Installation height
Redundancy modules																									
QUINT4-S-ORING/12-24DC/1x40	2907752	•		•	•		•				•										•		•	•	c
QUINT4-S-ORING/12-24DC/1x40/+	2907753	•		•	•		•				•						•	•			•		•	•	c
QUINT-ORING/24DC/2x10/1x20	2320173	•		•	•		•				•	•	•	•	•	•	•	•			•		•	•	e
QUINT-ORING/24DC/2x20/1x40	2320186	•		•	•		•				•	•	•	•	•	•	•	•			•		•	•	e
QUINT-ORING/24DC/2x40/1x80	2902879	•		•	•		•				•	•	•	•	•	•					•		•	•	e
QUINT4-DIODE/12-24DC/2x20/1x40	2907719	•		•	•		•										•	•					•	•	e
QUINT4-DIODE/48DC/2x20/1x40	2907720	•		•	•		•										•	•					•	•	e
TRIO2-DIODE/12-24DC/2x10/1x20	2907380	•		•	•						•												•	•	e
TRIO2-DIODE/12-24DC/2x20/1x40	2907379	•		•	•						•												•	•	e
UNO-DIODE/5-24DC/2x10/1x20	2905489	•		•	•																•		•	•	e
STEP-DIODE/5-24DC/2x5/1x10	2868606	•		•	•																•		•	•	e
Energy storage system																									
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-BAT/LI-ION/24DC/924 WH	2908232	•		•	•		•																•		d
UPS-CAP/24DC/10A/10KJ	2320377	•		•	•		•				•	•											•	•	d
UPS-CAP/24DC/20A/20KJ	2320380	•		•	•		•				•	•											•	•	d
STEP-BAT/LIPO/18.5DC/1.4AH	2320364	•			•																•		•		e
MINI-BAT/24DC/0.8AH	2866666	•					•																•		d
MINI-BAT/24DC/1.3AH	2866417	•					•																•		d
MINI-BAT/12DC/1.6AH	2866572	•					•																•		d
MINI-BAT/12DC/2.6AH	2866569	•					•																•		d

* Approval in preparation

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

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Approvals for uninterruptible power supplies

		UL							CSA	Ship					EX									
		CE	UL/C-UL Listed 61010	UL Listed UL 508	UL/C-UL Listed UL 508	UL/C-UL 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	DNV GL Group	ABS - American Bureau of Shipping	BV - Bureau Veritas	LR - Lloyd's Register	NK - Nippon Kaiji Kyokai	RINA	ATEX	SEMI F47-0706 Compliance	CB Scheme	Medical standard IEC 60601	EAC	Startup at -40°C	Installation height
Uninterruptible power supplies																								
QUINT4-UPS/24DC/24DC/5/PN	2906993	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/10/PN	2907068	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/20/PN	2907073	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/40/PN	2907079	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/5/EIP	2906994	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/10/EIP	2907069	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/20/EIP	2907074	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/40/EIP	2907080	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/5/EC	2906996	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/10/EC	2907070	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/20/EC	2907076	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/40/EC	2907081	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/5/USB	2906991	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/10/USB	2907067	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/20/USB	2907072	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/40/USB	2907078	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/5	2906990	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/10	2907066	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/20	2907071	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/40	2907077	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT-UPS/24DC/12DC/5/24DC/10	2320461	•			•	•																•		e
QUINT-UPS/1AC/1AC/500VA	2320270	•					•	•														•		e
QUINT4 UPS/1AC/1AC/1KVA	2320283	•					•	*												•		•	•	a
TRIO-UPS-2G/1AC/1AC/230V/750VA	2905909	•					•	•														•		a
TRIO-UPS-2G/1AC/1AC/120V/750VA	2905908	•					•	•														•		a
QUINT-UPS/24DC/24DC/5/1.3AH	2320254	•			•	•		•														•		d
QUINT-UPS/24DC/24DC/10/3.4AH	2320267	•			•	•		•														•		d
QUINT4-BUFFER/24DC/24DC/20	2907913	•			•	•	•	•												•		•	•	b
QUINT4-BUFFER/24DC/24DC/40	2909283	•			•	•	•	•												•		•	•	b
QUINT4-CAP/24DC/5/4KJ	2320539	•			•	•	•	•												•		•	•	b
QUINT4-CAP/24DC/10/8KJ	2320571	•			•	•	•	•												•		•	•	b
UNO-UPS/24DC/24DC/60W	2905907	•				•														•		•		e
STEP-UPS/24DC/24DC/3	2868703	•			•	•														•		•		e
STEP-UPS/12DC/12DC/4	2868693	•			•	•														•		•		e
TRIO-UPS-2G/1AC/24DC/5	2907160	•	•				•					*										•	•	d
TRIO-UPS-2G/1AC/24DC/10	2907161	•	•				•					*										•	•	d
TRIO-UPS-2G/3AC/24DC/20	2906367	•	•				•					*										•	•	d
MINI-DC-UPS/24DC/2	2866640	•	•		•		•	•																c
MINI-DC-UPS/12DC/4	2866598	•	•		•		•	•														•		d

Phoenix Contact is a globally present, Germany-based market leader. Our group is synonym for future-oriented components, systems, and solutions in the fields of electrical engineering, electronics, and automation. A global network across more than 100 countries, and 16,500 employees ensure a close proximity to our customers, which we believe is particularly important.

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