Power Reliability

2025

Power supply solutions

Power supplies, DC/DC converters, redundancy modules, and uninterruptible power supplies

PHOENIX CONTACT

Power for superior system availability

Leading technology with outstanding quality

You can supply your systems safely with our QUINT POWER, TRIO POWER, UNO POWER, and STEP POWER product families. Power supplies, DC/DC converters, redundancy modules, and uninterruptible power supplies are harmonized to the demands of various industries when it comes to functionality and design.

1 Power supplies

With their various functionalities, performance classes, and designs, our power supplies are the right partner for your application.

- QUINT POWER: Automotive industry, systems manufacturing, process industry, railway and energy technology
- TRIO POWER: Machine building
- UNO POWER: Infrastructure
- STEP POWER: Building automation, e-mobility

› More information starting on page 4

2 DC/DC converters and DC/AC inverters

DC/DC converters supply your system with controlled DC voltage. With the DC/AC inverter, you are securely underway in your DC applications.

- DC/DC converters with SFB Technology for high system availability and extreme applications
- DC/DC converters for the power range up to 100 W
- DC/DC converters for photovoltaic systems
- DC/AC inverters for generating alternating current

› More information starting on page 42

3 Redundancy modules

With our redundant solutions, you secure systems with high demands on operational safety. They prevent the failure of one power supply unit from resulting in a downtime of the complete system.

- Active redundancy modules decouple, monitor, and control up to the load
- Passive redundancy modules decouple power supplies

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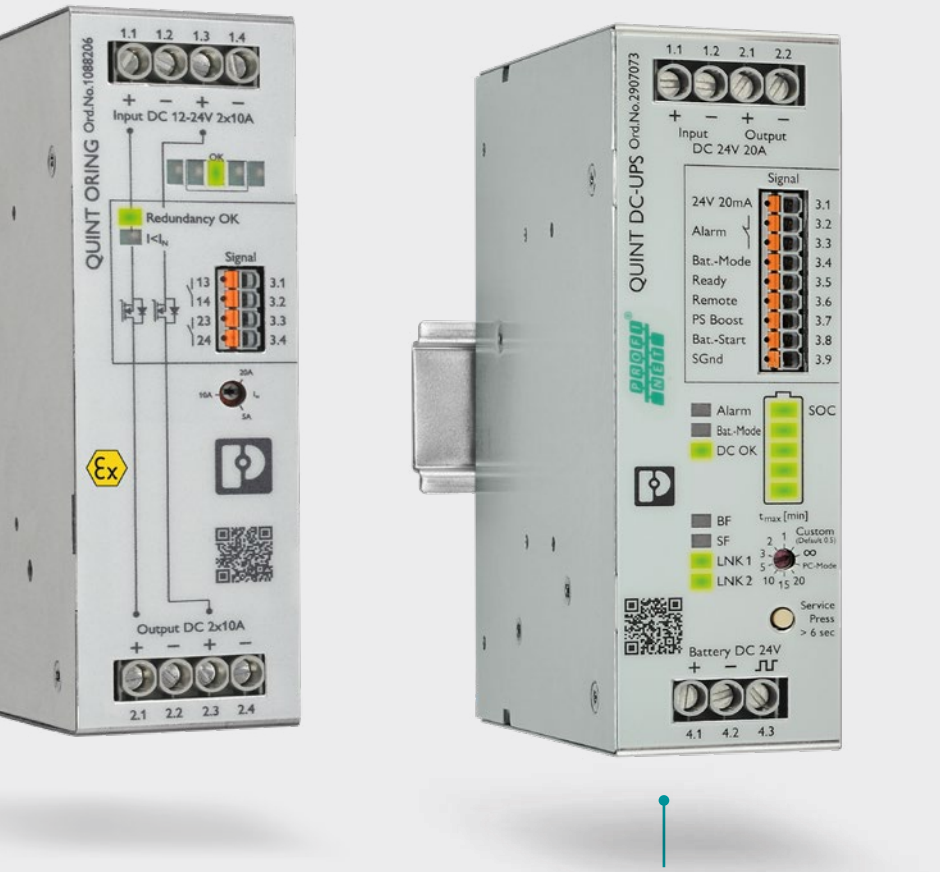


4 Uninterruptible power supplies

Use uninterruptible power supplies to supply your loads – even without mains power. We offer you the following solutions:

- POWER MANAGEMENT SUITE as configuration and management software
- DC UPS modules and AC UPS modules with an integrated interface, power supply, or battery module
- Comprehensive selection of battery modules
- DC UPS modules with integrated capacitor and buffer modules

› More information starting on page 64

Contents

Power supplies

For all fields of application

Supply your application reliably with our power supplies. Choose the ideal power supply that meets your needs from our wide range of different devices. Whether for the DIN rail, whether suitable for panel mounting, or whether in 19" rack mounting format – you will find the perfect power supply for your application.

Power supplies for the DIN rail

With their various functionalities, performance classes, and designs, our power supplies for the DIN rail are tailored to the requirements of different industries.

› More information starting on page 6

Power supplies with IP67 degree of protection

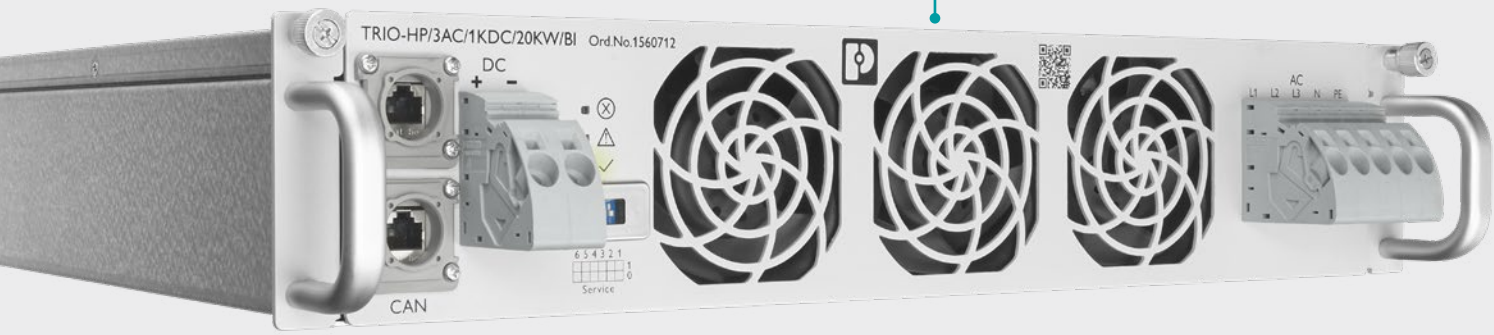
Our power supplies with IP67 degree of protection are the right devices for distributed supply in the field.

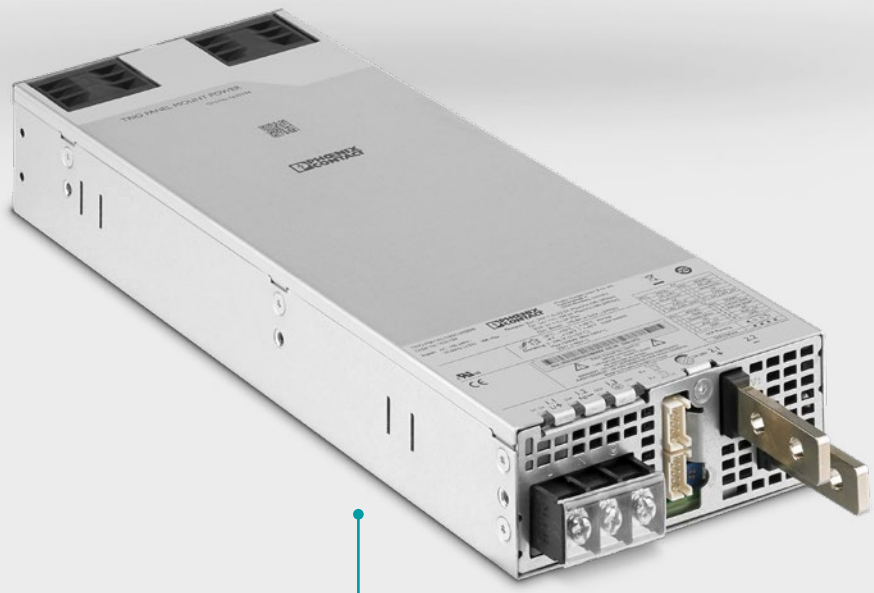
› More information starting on page 36

Power supplies for rack mounting

Our power supply for rack mounting provides a high output power in 19" format.

› More information starting on page 40





Power supply for panel mounting

Our power supply for panel mounting can be mounted anywhere on the control cabinet panel.

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Power supplies

1

Your advantages on the DIN rail

Maximize the availability of your systems with our high-quality power supplies featuring leading technology. The product families for the DIN rail differ with regard to their design, performance, and functionality. Select your solution from our product families.

QUINT POWER >100 W

- Powerful with high functionality
- For power up to 1,000 W
- SFB Technology
- Preventive function monitoring
- Easy system expansion
- Start difficult loads
- High level of immunity to interference
- Part of the COMPLETE line system

› More information starting on page 8

QUINT POWER <100 W

- Powerful and space-saving
- For power from 30 W to 100 W
- Preventive function monitoring
- Boost function for starting difficult loads
- Free choice of connection technology

› More information starting on page 14

TRIO POWER

- Robust with standard functionality
- Solid plug-and-play solution for machine building
- Space-saving design
- Reliable due to dynamic boost with a powerful output characteristic curve
- Smart diagnostics with multicolor LEDs and collective relay contact
- Optionally available with integrated device protection and IO-Link

› More information starting on page 20

STEP POWER

- For industry and building automation
- Maximum energy efficiency due to very low no-load losses and a high degree of efficiency
- Efficiency level VI
- EN 60335 for use in household applications
- Push-in connection technology
- Flexible mounting by simply snapping onto or screwing onto a level surface

More information starting on page 30

UNO POWER

- Compact with basic functionality
- High power density and low no-load losses
- Active function monitoring
- Large product range for all voltage levels
- Narrow housing from 21 to 126 mm wide
- Alignable without minimum clearance to neighboring modules

More information starting on page 26

Shared features and differences

The power supplies across all product families enable you to increase your system availability. Each power supply features high operational safety, an international approval package, and a wide range input.

	QUINT POWER		TRIO POWER	UNO POWER	STEP POWER
	>100 W	<100 W			
Wide range input and international approval package enable worldwide use	•	•	•	•	•
Maximum operating time with high MTBF >500,000 h at +40°C	•	•	•	•	•
Can be connected in parallel for increased power and redundancy	•	•	•	•[4]	•
Wide temperature range of -25°C to +70°C	•	•	•	•	•
Active function monitoring via switching output for remote diagnostics (DC OK)	•	•	•	•	
Preventive function monitoring reports critical operating states before faults occur	•	•			
Reliable starting of difficult loads with the dynamic boost power reserve	•	•	•		
Easy system expansion with the static boost power reserve	•	•[2]			
Magnetic tripping of miniature circuit breakers with SFB Technology	•				
Three-phase devices continue to operate without errors, even if one phase fails permanently	•		•		
Can be used in household applications in accordance with EN 60335					•
Can be parameterized individually	•				
IO-Link interface	•[1]		•[3]		
Integrated, electronic device protection			•[3]		

[1] Applies to the following devices: 1151047, 1151048
[2] Applies to the following devices: 2904597, 2904598, 2909575, 2909576, 2904605, 2904595
[3] Applies to the following devices: 1252696, 1252697
[4] Applies to devices up to and incl. 120 W

QUINT POWER

Powerful with SFB Technology

The powerful QUINT POWER power supplies with SFB Technology, preventive function monitoring, and configurable settings ensure the availability of your system.

Your advantages >100 W

- SFB Technology selectively trips standard miniature circuit breakers
- Preventive function monitoring reports critical operating states before faults occur
- Power reserves for easy system expansion and starting difficult loads
- High efficiency, long service life, and maximum immunity with integrated gas discharge tube
- Available preconfigured: from a batch quantity of just 1

SFB Technology

Designed by Phoenix Contact

Technologies and advantages

SFB (Selective Fuse Breaking) Technology

For high system availability, standard miniature circuit breakers must be tripped magnetically so that faulty current paths can be switched off selectively. SFB Technology supplies several times the nominal current for a short period, thus providing the necessary power reserve.

- Six times the nominal current for 15 ms trips standard miniature circuit breakers quickly and reliably
- When short circuits occur, faulty current paths are disconnected selectively
- Faults are isolated to ensure that key system parts remain in operation without interruptions

SFB Technology
Designed by Phoenix Contact

QUINT POWER >100 W

SFB Technology
Designed by Phoenix Contact

Powerful with SFB Technology

Our QUINT POWER power supplies with SFB Technology are ideally suited for ensuring the availability of your system. The power reserve enables easy system expansion as well as the trouble-free starting of difficult loads. Static boost with sustained power of up to 125% is available for system expansion. Dynamic boost of up to 200% for 5 s enables you to start difficult loads.

The range of features is rounded out by the customized configuration of signaling thresholds and characteristic curves.

QUINT POWER with IO-Link

SFB Technology
Designed by Phoenix Contact

The new communicative QUINT POWER power supply with IO-Link can be integrated into industrial networks quickly and easily.

With the integrated IO-Link interface, all the relevant operating data of the power supply, from the 3 AC side to the 24 V DC side, can be made available to the higher-level automation system. Calculating the usage-dependent service life enables predictive maintenance, raising preventive function monitoring to an entirely new level.

The power supply also enables parameterization via IO-Link. The parameterization is adopted directly after a device is replaced, saving time and avoiding user errors.

› More information starting on page 12

QUINT POWER >100 W

	QUINT POWER, 1~			
				
Input	85 V AC ... 264 V AC 90 V DC ... 350 V DC	85 V AC ... 264 V AC 90 V DC ... 350 V DC	85 V AC ... 264 V AC 90 V DC ... 350 V DC	85 V AC ... 264 V AC 90 V DC ... 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	120 x 130 x 140

	24 V / 5 A	24 V / 10 A	24 V / 20 A	24 V / 40 A
Type	QUINT4-PS/1AC/24DC/5	QUINT4-PS/1AC/24DC/10	QUINT4-PS/1AC/24DC/20	QUINT4-PS/1AC/24DC/40
Item no.	2904600	2904601	2904602	2904603
		48 V / 5 A	**48 V / 10 A**	**48 V / 20 A**
Type		QUINT4-PS/1AC/48DC/5	QUINT4-PS/1AC/48DC/10	QUINT4-PS/1AC/48DC/20
Item no.		2904610	2904611	2904612
		12 V / 15 A		
Type		QUINT4-PS/1AC/12DC/15		
Item no.		2904608		

	QUINT POWER, 1~	
		
Input	85 V AC ... 264 V AC 90 V DC ... 350 V DC	
W x H x D in mm	70 x 130 x 125	

	110 V / 4 A	
Type	QUINT4-PS/1AC/110DC/4	
Item no.	2904613	

	QUINT POWER, 1~, with protective coating for extreme environments	
		
Input	85 V AC ... 264 V AC 90 V DC ... 350 V DC	85 V AC ... 264 V AC 90 V DC ... 350 V DC
W x H x D in mm	50 x 130 x 125	70 x 130 x 125

	24 V / 10 A / CO	48 V / 10 A / CO
Type	QUINT4-PS/1AC/24DC/10/CO	QUINT4-PS/1AC/48DC/10/CO
Item no.	2904625	2904626

QUINT POWER >100 W

	QUINT POWER, 3~ SFB Technology Designed by Phoenix Contact			
				
Input	3 x 320 V AC ... 550 V AC 2 x 360 V AC ... 550 V AC 390 V DC ... 780 V DC	3 x 320 V AC ... 550 V AC 2 x 360 V AC ... 550 V AC 450 V DC ... 780 V DC	3 x 320 V AC ... 550 V AC 2 x 360 V AC ... 550 V AC 450 V DC ... 780 V DC	3 x 320 V AC ... 550 V AC 2 x 360 V AC ... 550 V AC 450 V DC ... 780 V DC
W x H x D in mm	36 x 130 x 125	50 x 130 x 125	70 x 130 x 125	120 x 130 x 125

	24 V / 5 A	24 V / 10 A	24 V / 20 A	24 V / 40 A
Type	QUINT4-PS/3AC/24DC/5	QUINT4-PS/3AC/24DC/10	QUINT4-PS/3AC/24DC/20	QUINT4-PS/3AC/24DC/40
Item no.	2904620	2904621	2904622	2904623
				48 V / 20 A
Type				QUINT4-PS/3AC/48DC/20
Item no.				2904627

	QUINT POWER, 3~, with protective coating for extreme environments SFB Technology Designed by Phoenix Contact	
		
Input	3 x 320 V AC ... 550 V AC 2 x 360 V AC ... 550 V AC ±226 V DC ... 390 V DC	3 x 320 V AC ... 550 V AC 2 x 360 V AC ... 550 V AC ±226 V DC ... 390 V DC
W x H x D in mm	70 x 130 x 125	120 x 130 x 125

	24 V / 20 A NEW	24 V / 40 A NEW
Type	QUINT4-PS/3AC/24DC/20/CO	QUINT4-PS/3AC/24DC/40/CO
Item no.	1343940	1783052

High protection for your system

For extreme operating conditions, use the optimally coordinated combination of PLUGTRAB-SEC surge protection and powerful 4th generation QUINT POWER power supply.

5-year warranty

If your 4th generation QUINT POWER becomes damaged in the first five years following purchase despite using this combination, you will receive a free replacement.

For further information and terms and conditions, search item no. 2907928 at phoenixcontact.com.

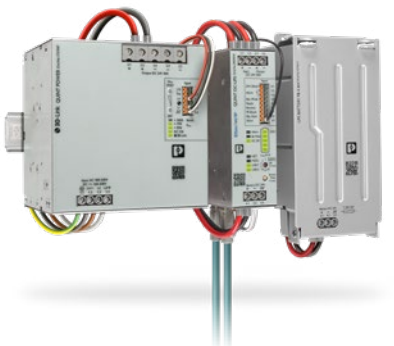
QUINT POWER with IO-Link

	QUINT POWER, 3~	
	 IO-Link	 IO-Link
Input	3 x 320 V AC ... 550 V AC 2 x 360 V AC ... 550 V AC 450 V DC ... 780 V DC	3 x 320 V AC ... 550 V AC 2 x 360 V AC ... 550 V AC 450 V DC ... 780 V DC
W x H x D in mm	70 x 130 x 125	120 x 130 x 125

	24 V / 20 A	24 V / 40 A
Type	QUINT4-PS/3AC/24DC/20/IOL	QUINT4-PS/3AC/24DC/40/IOL
Item no.	1151048	1151047

Communicative 24 V supply system – the system that knows more

The modular system consists of the communicative QUINT POWER power supplies, CAPAROC circuit breakers, and the intelligent QUINT DC UPS. It offers complete data consistency, from the primary side right through to the protected load circuits. It provides information on all relevant operating and diagnostic data for preventive function monitoring with minimal downtimes.

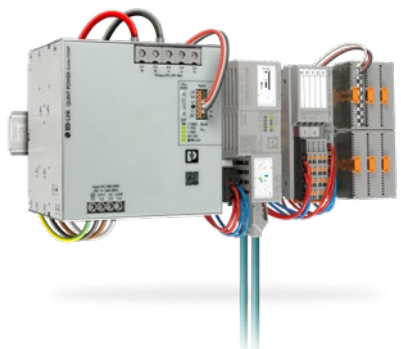


The uninterruptible system

Combine the QUINT POWER power supply with the intelligent QUINT DC UPS (from rev. 05) to create an uninterruptible 24 V supply system that provides all data from the power supply right through to the battery.

- The QUINT DC UPS provides interfaces and protocols for different industrial networks
- The corresponding software packages for the PLCnext, TIA Portal, Studio 5000, and TwinCAT engineering environments are included
- The POWER MANAGEMENT SUITE software can be used for function monitoring and configuration of the entire system

› More information starting on page 68



Direct connection to the controller

The integrated IO-Link interface enables the QUINT POWER power supply to be easily integrated into the control environment, so that all important data is available at a glance:

- Complete data consistency from the 400 V AC side to the 24 V DC side for comprehensive energy and grid monitoring
- Digital nameplate for easy device identification
- Status monitoring of temperature and service life
- Event and status messages for early error detection
- Easy replacement of configured devices, as the configuration is automatically transferred by the IO-Link master

› More information on QUINT POWER and CAPAROC on page 18

QUINT POWER for demanding environments

	QUINT POWER, 1~, with protective coating, decoupling MOSFET SFB Technology Designed by Phoenix Contact		
			
Input	85 V AC ... 264 V AC 90 V DC ... 350 V DC	85 V AC ... 264 V AC 90 V DC ... 350 V DC	85 V AC ... 264 V AC 90 V DC ... 350 V DC
W x H x D in mm	50 x 130 x 125	70 x 130 x 125	120 x 130 x 140
	24 V / 10 A / +	**24 V / 20 A / +**	**24 V / 40 A / +**
Type	QUINT4-PS/1AC/24DC/10/+	QUINT4-PS/1AC/24DC/20/+	QUINT4-PS/1AC/24DC/40/+
Item no.	2904616	2904617	2904618

	QUINT POWER, 1~, with protective coating, decoupling MOSFET, fixed configuration SFB Technology Designed by Phoenix Contact		
			
Input	85 V AC ... 264 V AC 90 V DC ... 350 V DC	85 V AC ... 264 V AC 90 V DC ... 350 V DC	
W x H x D in mm	50 x 130 x 125	70 x 130 x 125	
	24 V / 10 A / + / F NEW	**24 V / 20 A / + / F** NEW	
Type	QUINT4-PS/1AC/24DC/10/+/F	QUINT4-PS/1AC/24DC/20/+/F	
Item no.	1672244	1672245	

QUINT POWER Plus versions – the power supplies for demanding applications

The QUINT POWER Plus versions are the solution for complex applications under extreme ambient conditions.

With MOSFET integrated decoupling for 1+1 and n+1 redundancy, the Plus versions provide symmetrical load distribution and increase system availability. Faults are also detected early on by means of configurable output current signaling thresholds. At the same time, you save time and space due to the reduced wiring effort.

The Plus versions have double OVP (overvoltage protection) and thus also protect your system against voltage increases. In the event of an error, the output is switched off to protect the loads against overvoltages.

The functional safety standards and directives ensure reliable protection for people, the environment, and machinery.

The QUINT POWER Plus versions meet these requirements (SIL 3, HFT = 1 in accordance with IEC 61508 and IEC 61511) and thus ensure maximum operational safety.

Use in zone 2 potentially explosive areas is possible due to the protective coating and ATEX and IECEx approval in accordance with standards IEC 60079-0, IEC 60079-7, IEC 60079-11, and IEC 60079-15.

The Plus versions are rounded out by a wide temperature range of -40°C to +75°C for use under extreme ambient conditions.

Power supplies for the DIN rail

QUINT POWER – powerful and space-saving

Our small QUINT POWER power supplies cover the power range from 30 to 100 W. These compact power supplies provide you with a perfect combination of preventive function monitoring and exceptional power reserves in a compact size.

Furthermore, you can choose between Push-in and screw connection technology for these power supplies for the low power range.

Your advantages <100 W

- Starting difficult loads by using dynamic boost
- Preventive function monitoring reports critical operating states before faults occur
- Unrivaled EMI resistance and low noise emission
- High efficiency and long service life, with low power dissipation and low heating
- Slim-line design saves space in the control cabinet

Technologies and advantages

QUINT POWER <100 W

Powerful and space-saving

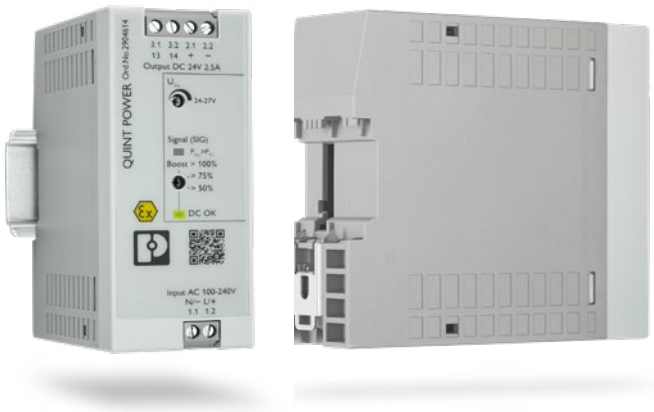
QUINT POWER is small in size, yet satisfies the most stringent system demands in the power range up to 100 W. The devices feature preventive function monitoring and exceptional power reserves. The high electromagnetic compatibility and electric strength, combined with low noise emission, enables use in demanding applications. Moreover, the devices have a high efficiency of up to 93.7% and a long service life.

High environmental resistance and marine approvals complete the QUINT POWER power supplies in the low power range.

QUINT4-SYS for demanding applications

This power supply has been specially developed for supplying power to compatible Phoenix Contact products via the T-bus DIN rail connector. Furthermore, it can be directly latched onto the DIN rail.

The device features a protective coating and has IECEx, ATEX, and HazLoc approvals. The OVP (overvoltage protection) of <30 V DC protects your system against voltage increases. In the event of an error, the output is switched off to protect the loads against overvoltages. The output circuit is decoupled by a MOSFET.



The power supply for operational amplifiers

The QUINT4-PS/1AC/2X15DC/2/PT stands out with a high degree of reliability at a high power density. It is used in measurement and control technology. It is particularly well-suited for supplying operational amplifiers and sensors. For this purpose, it has two outputs with a nominal current of +15 V DC / 2 A and -15 V DC / 1.4 A respectively.

Furthermore, with this power supply, the signaling of the DC OK contact can be set and power thresholds can be selected freely.

QUINT POWER <100 W

	QUINT POWER, Push-in connection, 1~		
			
Input	85 V AC ... 264 V AC 88 V DC ... 350 V DC	85 V AC ... 264 V AC 88 V DC ... 350 V DC	85 V AC ... 264 V AC 88 V DC ... 350 V DC
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	**24 V / 2.5 A**	**24 V / 3.8 A**
Type	QUINT4-PS/1AC/24DC/1.3/PT	QUINT4-PS/1AC/24DC/2.5/PT	QUINT4-PS/1AC/24DC/3.8/PT
Item no.	2909575	2909576	2909577
	12 V / 2.5 A		**12 V / 7.5 A**
Type	QUINT4-PS/1AC/12DC/2.5/PT		QUINT4-PS/1AC/12DC/7.5/PT
Item no.	2904605		2904607
	5 V / 5 A		
Type	QUINT4-PS/1AC/5DC/5/PT		
Item no.	2904595		

	QUINT POWER, Push-in connection, 1~		
			
Input	85 V AC ... 264 V AC 88 V DC ... 275 V DC		
W x H x D in mm	45 x 106 x 90		

	2 x 15 V / 2 A		
Type	QUINT4-PS/1AC/2X15DC/2/PT		
Item no.	2904596		

QUINT POWER <100 W

	QUINT POWER, screw connection, 1~		
			
Input	85 V AC ... 264 V AC 88 V DC ... 350 V DC	85 V AC ... 264 V AC 88 V DC ... 350 V DC	85 V AC ... 264 V AC 88 V DC ... 350 V DC
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	24 V / 2.5 A	24 V / 3.8 A
Type	QUINT4-PS/1AC/24DC/1.3/SC	QUINT4-PS/1AC/24DC/2.5/SC	QUINT4-PS/1AC/24DC/3.8/SC
Item no.	2904597	2904598	2904599

	QUINT POWER, screw connection, 1~, with protective coating		
			
Input	85 V AC ... 264 V AC 88 V DC ... 350 V DC		
W x H x D in mm	40 x 99 x 114		

	24 V / 2.5 A		
Type	QUINT4-SYS-PS/1AC/24DC/2.5/SC		
Item no.	2904614		

Power supplies and device circuit breakers

The perfect match for system protection

Combine our products to create an overall concept and benefit from the advantages of system integration.

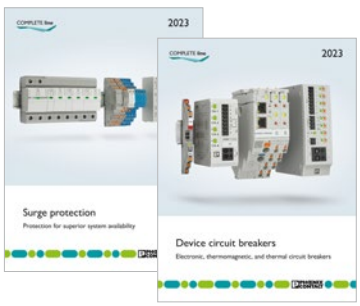
Systems are precisely clocked – one component fails, and system downtimes occur. Surge voltages, mains interruptions, or fluctuations as well as an overload or short circuit can severely impact your system. High availability requires coordinated components that not only supply, but also protect.

Your advantages

- Surge protection for protection concepts in every application
- Device circuit breaker for protection against overload and short circuit
- Failsafe and reliable through coordinated components
- Individual expansion with the comprehensive product portfolio

Further information on surge protection and device protection

Simply scan the QR code or enter the web code into the search field on our website.



Surge protection

Web code: #1260

Device protection

Web code: #0156

Protection for high system availability

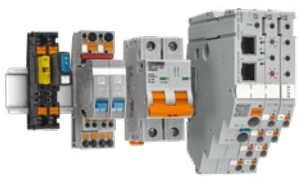
Our products for the operational safety of electrical systems, installations, and devices enable you to effortlessly create an uninterruptable and clean power supply, as well as a stable data connection.

Increasing demand for high quality and efficiency in production is leading to the construction of increasingly complex systems. At the same time, the requirements on safety and availability are increasing. The failure of machines or larger system parts results in significant costs.

With our coordinated product portfolio for power supplies and coordinated protective devices, a protection concept can be created for any application.

Surge protection for:

- Power supply systems, for protecting power feed-in through subdistributions all the way to the end device
- MCR technology, for protecting sensitive interfaces for the interference-free transmission of signals from the field to the control center
- Information technology, for the interference-free transmission of signals at high transmission speeds and minimum attenuation
- Transceiver systems, for protecting antenna cables and receivers for interference-free signal transmission



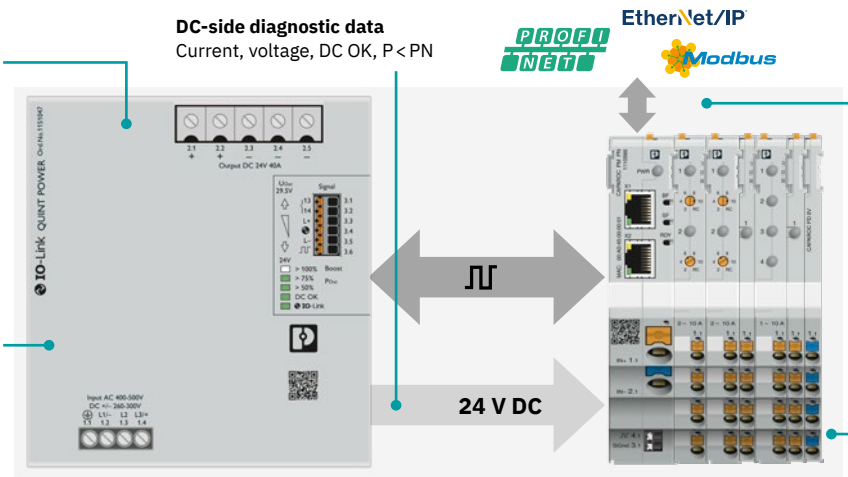
Device circuit breakers for different requirements:

- Electronic circuit breakers for protection in the event of overload, short circuit, line attenuation, and high input capacitance
- Thermal-magnetic circuit breakers for protection in the event of overload and short circuit
- Thermal circuit breakers for protection in the event of overload

The protected system

Combine the QUINT POWER IOL power supply with the CAPAROC circuit breaker system and benefit from the advantages of system integration. One central interface for QUINT POWER and CAPAROC enables simple and cost-effective integration of the power supply into the network protocol of the circuit breaker system:

- The following interfaces enable complete transparency and access to the entire system: PROFINET, EtherNet/IP™, and Modbus/TCP
- A web server enables remote access to operating states, error messages, and setting details of the system solution
- Function blocks are available for the following engineering environments: PLCnext, TIA Portal, Studio 5000, and CODESYS



TRIO POWER

Power supplies with standard functionality

Our new TRIO POWER power supplies are the ideal solution for machine building. Compact, robust, and always reliable: The TRIO POWER 24 V power supply sets the new standard in machine building. The Plug and Play solution for the control cabinet: simply unpack, connect, and you're done!

Your advantages

- Space-saving due to its low overall width and capability of being mounted directly side by side
- Robust and reliable due to dynamic boost with a powerful output characteristic curve
- Easy handling with Push-in connection technology
- Smart diagnostics with multicolor LEDs and collective relay contact for a clear status display, with optional IO-Link
- High system availability: supply and protection in one device due to the integrated compact multi-channel circuit breaker

Technologies and advantages

Save space

The vertically arranged front connection technology allows for narrow overall widths and saves space in the control cabinet. Due to TRIO POWER's capability of being mounted directly side by side, the available space can be maximally used. The low overall depth enables installation in 210 mm small housings.

Robust and reliable

TRIO POWER provides a powerful package for drive technology applications with up to 960 W output power in 1 AC and 3 AC versions. The dynamic boost (150%/5 s) enables difficult loads to be started. With the powerful output characteristic curve, even capacitive loads can be charged without any problems.

Easy handling

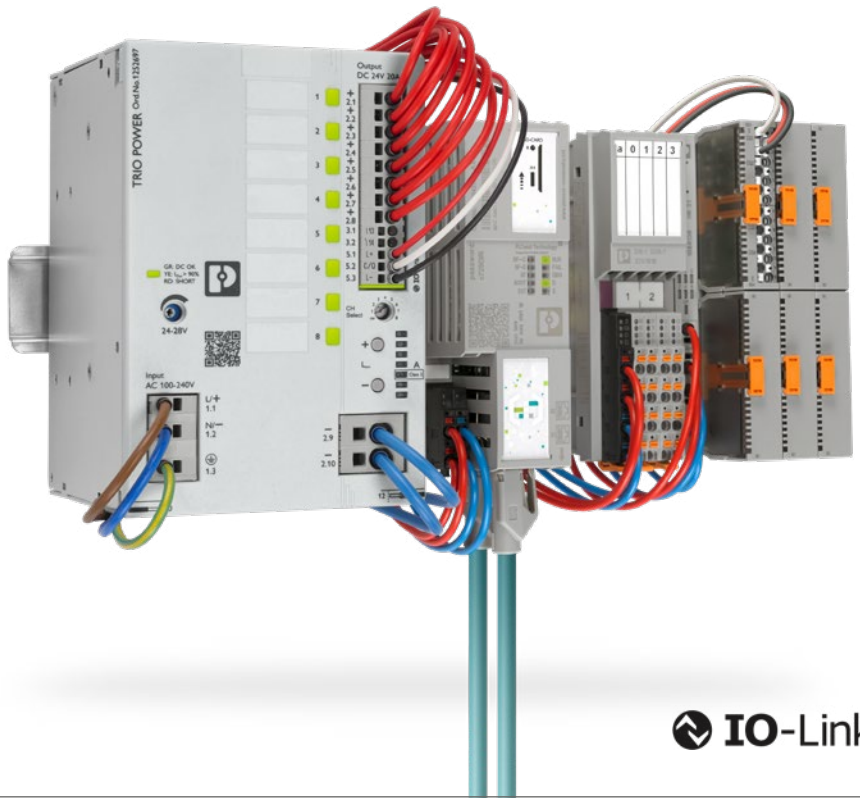
The power supplies enable easy handling: Push-in connection technology allows for quick and tool-free installation. Integrated marking fields can be used for easy EID and circuit marking. Due to an intuitive commissioning concept, the devices are quickly ready for use. The mechanical lock of the potentiometers ensures that the devices are also tamper-proof.

TRIO POWER power supplies with device protection and IO-Link

All TRIO POWER power supplies feature smart diagnostics with multicolor LEDs and a collective signal contact. This is used to signal all relevant states such as DC OK, overload, and short circuit.

Devices with integrated multi-channel device protection and an IO-Link interface for diagnostics and parameterization are optionally available. The compact devices reduce the installation work, space requirements in the control cabinet, and material costs.

TRIO POWER power supplies therefore provide reliable supply and protection in one device.



3rd generation TRIO POWER

	TRIO POWER, 1~			
				
Input	85 V AC ... 264 V AC 90 V DC ... 264 V DC	85 V AC ... 264 V AC 90 V DC ... 264 V DC	85 V AC ... 264 V AC 90 V DC ... 264 V DC	85 V AC ... 264 V AC 90 V DC ... 264 V DC
W x H x D in mm	30 x 135 x 120	35 x 135 x 120	40 x 135 x 132	55 x 135 x 132

	24 V / 3 A NEW	24 V / 5 A	24 V / 10 A	24 V / 20 A
Type	TRIO3-PS/1AC/24DC/3/C2LPS	TRIO3-PS/1AC/24DC/5	TRIO3-PS/1AC/24DC/10	TRIO3-PS/1AC/24DC/20
Item no.	1362785	1159037	1159038	1159039
				48 V / 10 A NEW
Type				TRIO3-PS/1AC/48DC/10
Item no.				1362786
	12 V / 5 A NEW			
Type	TRIO3-PS/1AC/12DC/5/C2LPS			
Item no.	1362789			

	TRIO POWER, 1~, integrated device protection			
				
Input	85 V AC ... 264 V AC 90 V DC ... 264 V DC	85 V AC ... 264 V AC 90 V DC ... 264 V DC		
W x H x D in mm	68 x 135 x 132	88 x 135 x 132		

	24 V / 10 A	24 V / 20 A		
Type	TRIO3-PS/ 1AC/24DC/10/4C/IOL	TRIO3-PS/ 1AC/24DC/20/8C/IOL		
Item no.	1252696	1252697		

3rd generation TRIO POWER

	TRIO POWER, 3~			
				
Input	3 x 320 V AC ... 550 V AC 2 x 360 V AC ... 550 V AC	3 x 320 V AC ... 550 V AC 2 x 360 V AC ... 550 V AC	3 x 320 V AC ... 550 V AC 2 x 360 V AC ... 550 V AC	3 x 320 V AC ... 550 V AC 2 x 360 V AC ... 550 V AC
W x H x D in mm	35 x 135 x 120	40 x 135 x 132	60 x 135 x 132	90 x 135 x 167

	24 V / 5 A NEW	24 V / 10 A	24 V / 20 A	24 V / 40 A
Type	TRIO3-PS/3AC/24DC/5	TRIO3-PS/3AC/24DC/10	TRIO3-PS/3AC/24DC/20	TRIO3-PS/3AC/24DC/40
Item no.	1362783	1159042	1159044	1159045
				48 V / 20 A NEW
Type				TRIO3-PS/3AC/48DC/20
Item no.				1362784

	TRIO POWER, 3~, integrated device protection			
				
Input	3 x 320 V AC ... 550 V AC 2 x 360 V AC ... 550 V AC	3 x 320 V AC ... 550 V AC 2 x 360 V AC ... 550 V AC		
W x H x D in mm	88 x 135 x 132	128 x 135 x 167		

	24 V / 20 A NEW	24 V / 40 A NEW		
Type	TRIO3-PS/ 3AC/24DC/20/8C/IOL	TRIO3-PS/ 3AC/24DC/40/8C/IOL		
Item no.	1362791	1362792		

3rd generation TRIO POWER for extreme environments

	TRIO POWER, 1~, with PCB with protective coating		
			
Input	85 V AC ... 264 V AC 90 V DC ... 264 V DC	85 V AC ... 264 V AC 90 V DC ... 264 V DC	85 V AC ... 264 V AC 90 V DC ... 264 V DC
W x H x D in mm	35 x 135 x 120	40 x 135 x 132	55 x 135 x 132

	24 V / 5 A / CO NEW	24 V / 10 A / CO NEW	24 V / 20 A / CO NEW
Type	TRIO3-PS/1AC/24DC/5/CO	TRIO3-PS/1AC/24DC/10/CO	TRIO3-PS/1AC/24DC/20/CO
Item no.	1523018	1523019	1523020

TRIO POWER for extreme environments

The TRIO POWER power supplies with protective coating ensure high system availability even in extreme ambient conditions. The coating protects against dust, corrosive gases, and humidity. The power supply also impresses with its space-saving design, robust and reliable supply, easy handling, and intelligent diagnostics.

Power supplies for extreme environments

In addition to TRIO POWER power supplies, we also provide QUINT POWER power supplies and STEP POWER power supplies with protective coating.

QUINT POWER power supplies, DC/DC converters, and redundancy modules also have ATEX and IECEx approvals. In addition to protection against dust and corrosive gases, this also provides protection against 100% humidity. Failures due to creepage currents and electrochemical migration caused by corrosion are also prevented. The components are protected within a wide temperature range of -40°C to +70°C.

2nd generation TRIO POWER

	TRIO POWER, 1~	
		
Input	85 V AC ... 264 V AC 99 V DC ... 275 V DC	85 V AC ... 264 V AC 99 V DC ... 275 V DC
W x H x D in mm	35 x 130 x 115	42 x 130 x 160
	24 V / 5 A / B+D[1)]	**24 V / 10 A / B+D[1)]**
Type	TRIO-PS-2G/1AC/24DC/5/B+D	TRIO-PS-2G/1AC/24DC/10/B+D
Item no.	2903144	2903145
		48 V / 5 A
Type		TRIO-PS-2G/1AC/48DC/5
Item no.		2903159
	12 V / 10 A	
Type	TRIO-PS-2G/1AC/12DC/10	
Item no.	2903158	

	TRIO POWER, 1~	
		
Input	187 V AC ... 264 V AC 187 V DC ... 420 V DC	
W x H x D in mm	42 x 130 x 160	
	48.5 V / 5 A	
Type	TRIO-PS-2G/ 230AC-400DC/48DC/5	
Item no.	1157806	

	TRIO POWER, 3~	
		
Input	3 x 320 V AC ... 575 V AC	
W x H x D in mm	110 x 130 x 160	
	72 V / 14 A	
Type	TRIO-PS-2G/3AC/72DC/14	
Item no.	1076188	

[1)] Bridge and Deck, optimized for use on the bridge of a ship.

UNO POWER

Compact and highly efficient

Due to their high power density and efficiency, UNO POWER power supplies are the perfect solution for industrial applications. They support both centralized and distributed installations, and are particularly suitable for compact control cabinets. The new, ultra-slim UNO POWER generation up to 90 W also features Push-in connection technology and an extended voltage range of up to 277 V AC.

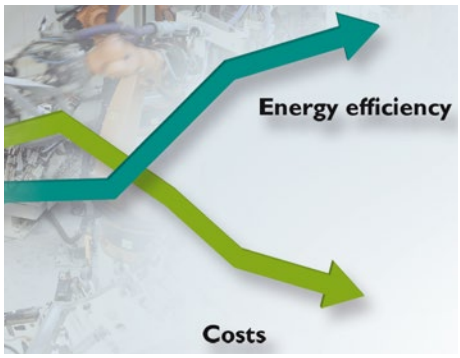
Your advantages

- Optimum supply of single-phase systems
- Save space in the control cabinet with the narrow overall width
- Save energy with up to 95% efficiency
- Outdoor installation and reliable device startup at -40°C
- Easy output voltage system diagnostics with the floating switch contact and DC OK LED

Technologies and advantages

Comprehensive portfolio

The right solution from 25 to 960 W with output voltages of 5 V, 12 V, 24 V, and 48 V.



Maximum energy efficiency

Up to 95% efficiency, even for devices with low power, minimizes heat loss and increases the service life.

Conformance with EN 61558-2-16

UNO POWER meets the worldwide safety standard and also the EN 61558-2-16 transformer standard.

Distributed supply up to 90 W

The new generation of UNO POWER power supplies for the distributed supply of low power has been further developed. The devices are now up to 36% more compact and also achieve over 95% efficiency. The 2nd generation power supply with 90 W power now has an overall width of just 35 mm and is therefore 20 mm narrower than the power supply of the previous generation.

Push-in connection technology makes handling much easier and also reduces wiring effort.

The extended input voltage of 100 to 277 V AC and 100 to 250 V DC enables worldwide, reliable use of the power supplies.

Centralized supply with 120 to 960 W

UNO POWER power supplies are specifically designed for applications with high loads. They are ideal for use in industrial applications and for urban infrastructure. Easy system diagnostics is implemented by means of a floating DC OK signal contact.

A 240 W device specially developed for supplying Power over Ethernet solutions with 48 V is available. It meets the higher dielectric strength requirements of standard IEEE 802.3bt.

2nd generation UNO POWER

	UNO POWER, 1~, Push-in connection		
			
Input	85 V AC ... 305 V AC	85 V AC ... 305 V AC	85 V AC ... 305 V AC
W x H x D in mm	21 x 90 x 90	30 x 90 x 90	35 x 90 x 90

	24 V / 30 W NEW	24 V / 60 W NEW	24 V / 90 W NEW
Type	UNO2-PS/1AC/24DC/30W/PT	UNO2-PS/1AC/24DC/60W/PT	UNO2-PS/1AC/24DC/90W/PT
Item no.	1399932	1399933	1399934
	12 V / 30 W NEW		
Type	UNO2-PS/1AC/12DC/30W/PT		
Item no.	1399935		

	UNO POWER, 1~, screw connection		
			
Input	85 V AC ... 264 V AC	85 V AC ... 264 V AC	85 V AC ... 264 V AC
W x H x D in mm	35 x 130 x 129	45 x 130 x 129	59 x 130 x 129

	24 V / 120 W	24 V / 240 W	24 V / 480 W
Type	UNO2-PS/1AC/24DC/120W	UNO2-PS/1AC/24DC/240W	UNO2-PS/1AC/24DC/480W
Item no.	1110466	1096432	2910105

	UNO POWER, 1~, screw connection		
			
Input	85 V AC ... 264 V AC	85 V AC ... 264 V AC	85 V AC ... 264 V AC
W x H x D in mm	126 x 130 x 129	45 x 130 x 129	35 x 130 x 129

	24 V / 960 W	48 V / 240 W	12 V / 120 W NEW
Type	UNO2-PS/1AC/24DC/960W	UNO2-PS/1AC/48DC/240W	UNO2-PS/1AC/12DC/120W/SC
Item no.	1110043	1110155	1399940

1st generation UNO POWER

	UNO POWER, 1~, screw connection			
				
Input	85 V AC ... 264 V AC	85 V AC ... 264 V AC	85 V AC ... 264 V AC	85 V AC ... 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	37 x 130 x 125

	24 V / 30 W	**24 V / 60 W**	**24 V / 100 W**	**24 V / 150 W**
Type	UNO-PS/1AC/24DC/ 30W	UNO-PS/1AC/24DC/ 60W	UNO-PS/1AC/24DC/100W	UNO-PS/1AC/24DC/150W
Item no.	2902991	2902992	2902993	2904376
			24 V / 100 W / H[1)]	
Type			UNO-PS/1AC/24DC/100W/H	
Item no.			1088851	
			24 V / 90 W / C2LPS[2)]	
Type			UNO-PS/1AC/24DC/90W/C2LPS	
Item no.			2902994	
		48 V / 60 W	**48 V / 100 W**	
Type		UNO-PS/1AC/48DC/ 60W	UNO-PS/1AC/48DC/100W	
Item 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	
Item 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	
Item no.	2902998	2902999	2902997	
		12 V / 55 W / H[1)]		
Type		UNO-PS/1AC/12DC/ 55W/H		
Item no.		1088850		
	5 V / 25 W	**5 V / 40 W**		
Type	UNO-PS/1AC/ 5DC/ 25W	UNO-PS/1AC/ 5DC/ 40W		
Item no.	2904374	2904375		

	UNO POWER, 2~, screw connection
	
Input	2 x 264 V AC ... 575 V AC
W x H x D in mm	55 x 90 x 84

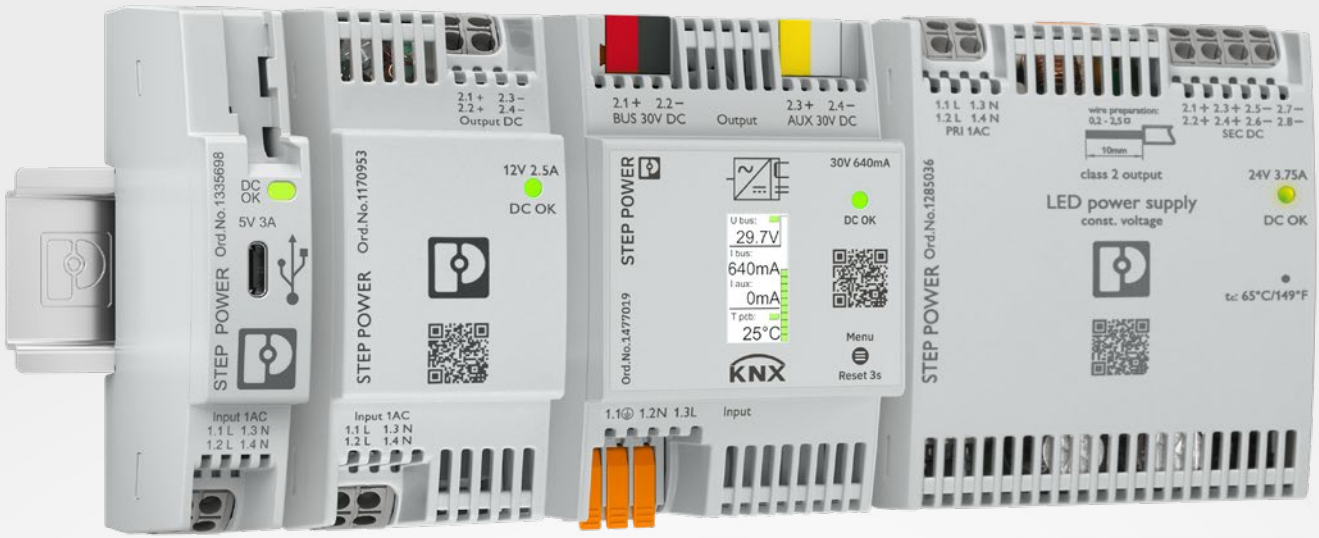
	24 V / 90 W / C2LPS[2)]
Type	UNO-PS/2AC/24DC/90W/C2LPS
Item no.	2904371

[1)] Can be used in household applications in accordance with EN 60335.
[2)] NEC Class 2 output, certified in accordance with UL 1310.

STEP POWER

For building automation

STEP POWER power supplies are optimally tailored to the needs of modern building automation – in both industrial and residential applications. The low no-load losses and high degree of efficiency ensure maximum energy efficiency and meet the requirements of Efficiency Level VI.



Your advantages

- Energy savings with high efficiency in no-load and part-load operation (Efficiency Level VI)
- Space savings in the control cabinet with the narrow and low-profile designs combined with increased performance (up to 100%)
- Approval for household purposes (EN 60335) allows use in domestic applications for the first time
- Quick and easy startup with tool-free Push-in connection technology
- Worldwide use with AC and DC wide range input

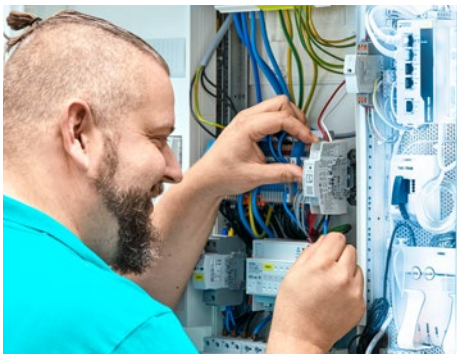
Technologies and advantages

Extreme ambient conditions

The PCB with protective coating ensures high availability even in demanding ambient conditions as low as -40°C.

Power over Ethernet

The first power supply for small PoE applications with four to eight ports for use in building automation.



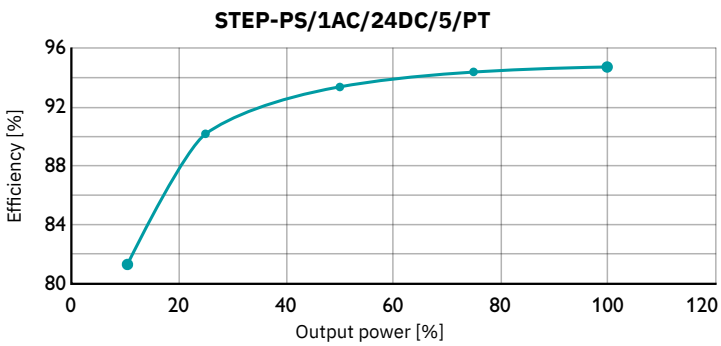
Efficiency in the control cabinet

- AC or DC input: single-phase
- DC output: power up to 120 W
- Voltages: 5, 12, 15, 24, 30, 48 - 56 V DC

Efficiency Level VI and EcoDesign requirement

With low no-load losses of 0.1 W or 0.21 W and a high degree of efficiency, STEP POWER power supplies ensure optimum energy efficiency in buildings. The power supplies satisfy the high efficiency standard requirements, and therefore obtain Efficiency Level VI.

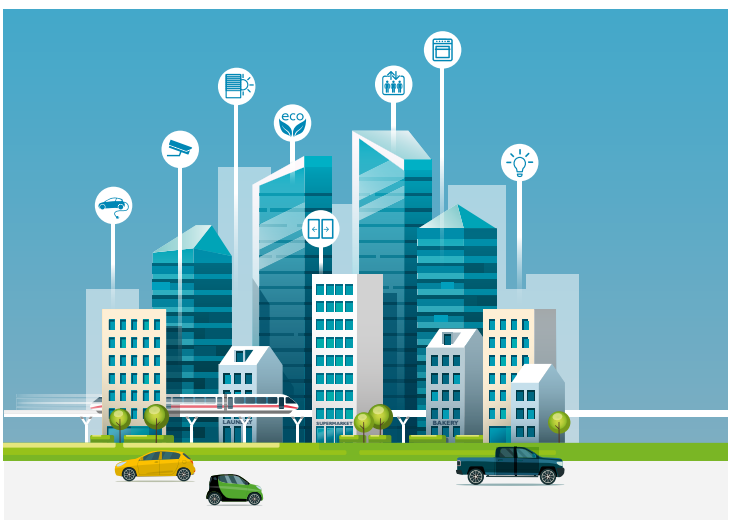
In addition, the requirements of the European EcoDesign directive are also met. The aim of this is to improve energy efficiency and environmental compatibility.



The graph shows an example of the efficiency of the STEP3-PS/1AC/24DC/5/PT over the entire load range from 0 to 100%. From an output power of 25%, the efficiency rises significantly above 90%. With a load of 75%, it even exceeds 94%.

Building automation

Whether a home charger by the front door, sun protection in an office building, or a bakery oven in the supermarket, power supplies meet stringent requirements for the safety of electrical devices. In addition to the standard industrial approvals, the STEP POWER power supplies are certified for household purposes in accordance with DIN EN 60335-1 for the first time. This is why they are the ideal solution for domestic applications.



3rd generation STEP POWER

	STEP POWER, 1~			
				
Input	85 V AC ... 264 V AC 88 V DC ... 350 V DC	85 V AC ... 264 V AC 88 V DC ... 350 V DC	85 V AC ... 264 V AC 88 V DC ... 350 V DC	85 V AC ... 264 V AC 88 V DC ... 350 V DC
W x H x D in mm	18 x 90 x 61	36 x 90 x 61	54 x 90 x 61	72 x 90 x 61

	24 V / 0.63 A[1)]	**24 V / 1.3 A[1)]**	**24 V / 2.5 A[1)]**	**24 V / 4 A**
Type	STEP3-PS/1AC/24DC/0.63/PT	STEP3-PS/1AC/24DC/1.3/PT	STEP3-PS/1AC/24DC/2.5/PT	STEP3-PS/1AC/24DC/4/PT
Item no.	1088495	1088494	1088491	1140066
			15 V / 4 A[1) 2)]	**24 V / 5 A**
Type			STEP3-PS/1AC/15DC/4/PT	STEP3-PS/1AC/24DC/5/PT
Item no.			1170956	1088478
	12 V / 1.3 A[1) 2)]	**12 V / 2.5 A[1) 2)]**	**12 V / 5 A[1) 2)]**	
Type	STEP3-PS/1AC/12DC/1.3/PT	STEP3-PS/1AC/12DC/2.5/PT	STEP3-PS/1AC/12DC/5/PT	
Item no.	1170952	1170953	1170955	
	5 V / 3 A[1) 2)]			
Type	STEP3-PS/1AC/5DC/3/PT			
Item no.	1170954			

	STEP POWER, 1~			
				
Input	85 V AC ... 264 V AC 88 V DC ... 275 V DC	85 V AC ... 264 V AC 88 V DC ... 275 V DC	108 V AC ... 264 V AC 88 V DC ... 275 V DC	
W x H x D in mm	72 x 90 x 43	72 x 90 x 43	72 x 90 x 61	

	24 V / 3.75 A[1)]	**24 V / 3.75 A[1)]**	**48 V / 2.5 A** NEW	
Type	STEP3-PS/ 1AC/24DC/3.75/PT/FL	STEP3-PS/ 1AC/24DC/3.75/PT/LED	STEP3-PS/1AC/48DC/2.5/PT	
Item no.	1088486	1285036	1285035	

[1)] NEC Class 2 output, certified in accordance with UL 1310.
[2)] Deviating input voltage range: 88 to 275 V DC.

3rd generation STEP POWER

	STEP POWER, 1~, USB port	
		
Input	85 V AC ... 264 V AC 88 V DC ... 275 V DC	85 V AC ... 264 V AC 88 V DC ... 275 V DC
W x H x D in mm	18 x 90 x 61	18 x 90 x 61

	5 V / 3 A / USB-A NEW	5 V / 3 A / USB-C NEW
Type	STEP3-PS/1AC/5DC/3/PT/USB-A	STEP3-PS/1AC/5DC/3/PT/USB-C
Item no.	1335699	1335698

	STEP POWER, 1~, with PCB with protective coating	
		
Input	85 V AC ... 264 V AC 88 V DC ... 275 V DC	
W x H x D in mm	72 x 90 x 43	

	24 V / 3.75 A / CO[1)]	
Type	STEP3-PS/1AC/24DC/3.75/PT/CO	
Item no.	1321105	

[1)] NEC Class 2 output, certified in accordance with UL 1310.

Web code: #1930

STEP POWER power supply for building automation

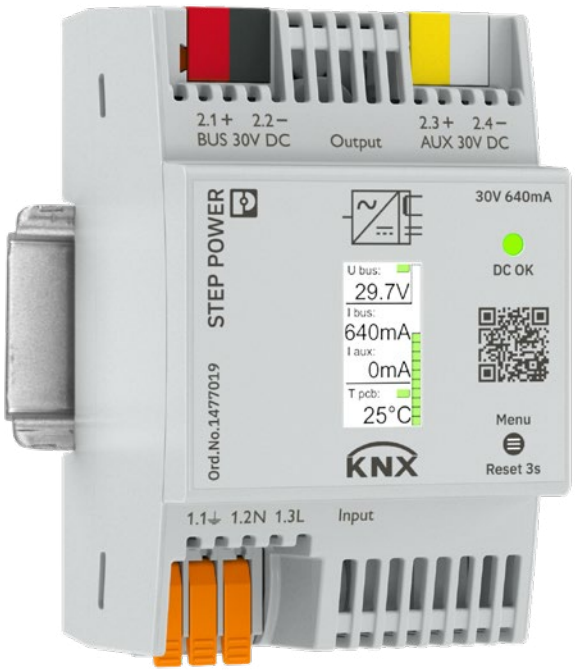
Bus power supply for KNX

The KNX bus power supply in the STEP POWER family is optimally tailored to the modern building automation of industrial and residential properties. As the first bus power supply, it has an active KNX choke. This adapts dynamically to the connected KNX devices, increasing the efficiency of the bus system. At the same time, using the active KNX choke ensures full utilization of communication capacity.

This makes a KNX system significantly more reliable in terms of system safety and availability and allows it to be planned more effectively.

The multifunctional color display shows all relevant KNX status information, supports commissioning, and helps to expand and perform diagnostics on the building automation.

The wide range input with both AC and DC enables worldwide use and compensates for mains fluctuations so that KNX communication is not affected.



Your advantages

- Easy analysis with integrated color display – all relevant KNX status information at a glance
- History can be called up as a diagnostic function in the menu
- Active KNX choke provides greater efficiency and ensures reliable communication up to full capacity
- Space-saving due to the compact design
- Worldwide use with AC and DC wide range input

STEP POWER for KNX

	STEP POWER, 1~, bus power supply for KNX
	
Input	85 V AC ... 264 V AC 90 V DC ... 275 V DC
W x H x D in mm	54 x 90 x 61

	30 V / 0.64 A NEW
Type	STEP3-PS/1AC/KNX/640/LPT
Item no.	1477019

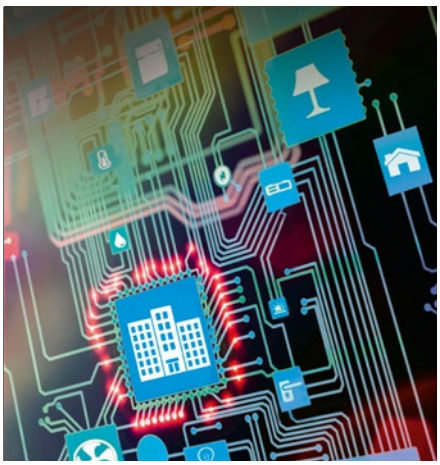
STEP POWER for KNX bus systems

Our STEP POWER bus power supply for the safe operation of a KNX bus system sets new standards.

The STEP POWER bus power supply supplies the KNX bus with high energy efficiency via a newly developed, patented active KNX choke. The multifunctional color display provides you with all important KNX status information at a glance, such as the current bus load and historical values as a diagnostic tool in the menu.

The wide input voltage range of 85 to 264 V AC and 90 to 275 V DC means that the KNX bus power supply can be used worldwide.

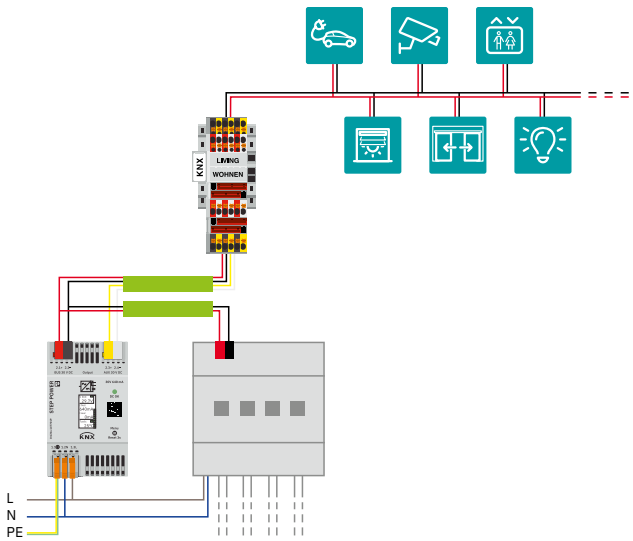
The integrated Push-in lever connections round out the handling of the STEP POWER bus power supply.



Structure of KNX TP systems

KNX systems are versatile and can be extended flexibly:

- One power supply is usually used per KNX line
- The power supply supplies the KNX devices and enables them to exchange information
- A KNX device can be calculated with 10 mA, whereby individual consumption must always be taken into consideration
- The bus line can be routed and branched as desired, enabling maximum design flexibility



Power supplies with IP67 degree of protection

For distributed supply

The robust power supplies with IP67 degree of protection are ideally suited for distributed supply in the field. The weather-resistant die-cast aluminum housing protects the devices against dust and water. This enables the power supplies to ensure high system availability even in harsh ambient conditions. Various device connections provide flexibility during mounting.

Your advantages

- Direct installation at the load in the field reduces cable lengths and saves space in the control cabinet
- The robust die-cast aluminum housing ensures high system availability with resistance to extreme ambient conditions (temperature, dust, and water)
- High shock and vibration resistance, plus electric strength
- Improved diagnostic options in the field with DC OK LED and AC OK LED
- NEC Class 2 (P_{OUT} <100 W)

IP67 POWER

	TRIO POWER, 1~, NEC Class 2 output			
				
Input	85 V AC ... 305 V AC 88 V DC ... 275 V DC	85 V AC ... 305 V AC 88 V DC ... 275 V DC	85 V AC ... 305 V AC 88 V DC ... 275 V DC	85 V AC ... 305 V AC 88 V DC ... 275 V DC
W x H x D in mm	100 x 162 x 53	100 x 164 x 53	100 x 164 x 53	100 x 222 x 53
	24 V / 3.75 A / INC[1)]	**24 V / 3.75 A / M12**[1)]	**24 V / 3.75 A / M12-A**[1)]	**24 V / 3.75 A / IPD**[1)]
Type	TRIO-PS67/ 1AC/24DC/3.75/INC	TRIO-PS67/ 1AC/24DC/3.75/M12	TRIO-PS67/ 1AC/24DC/3.75/M12-A	TRIO-PS67/ 1AC/24DC/3.75/IPD
Item no.	1278302	1278165	1376306	1278301

	TRIO POWER, 1~			
				
Input	90 V AC ... 264 V AC 99 V DC ... 275 V DC	90 V AC ... 264 V AC 99 V DC ... 275 V DC	108 V AC ... 264 V AC	90 V AC ... 264 V AC 99 V DC ... 275 V DC
W x H x D in mm	136 x 240 x 53	136 x 240 x 53	136 x 240 x 53	136 x 292 x 53
	24 V / 8 A / INC	**24 V / 10 A / M12**	**24 V / 10 A / 5P**	**24 V / 10 A / IPD**
Type	TRIO-PS67/ 1AC/24DC/8/INC	TRIO-PS67/ 1AC/24DC/10/M12	TRIO-PS67/ 1AC/24DC/10/M12/5P	TRIO-PS67/ 1AC/24DC/10/IPD
Item no.	1065976	1111634	1395808	1111664

[1)] NEC Class 2 output, certified in accordance with UL 1310.

Power supplies for panel mounting

High power with flexible mounting

The TRIO POWER power supply for panel mounting provides high power of up to 2.5 kW in a compact housing. With their flexible panel mounting and comprehensive functions, the robust devices can be used in a wide range of applications, such as machine building, robotics, or battery storage systems.

Your advantages

- High power density and high efficiency with a compact design
- Robust and reliable due to dynamic boost with a powerful output characteristic curve
- Smart diagnostics with comprehensive monitoring via LED signaling and CAN bus interface
- Easy power increase with parallel connection with integrated O-ring diode
- Customized use through flexible panel mounting options

Power supplies for panel mounting

	TRIO POWER, 1~
	
Input	85 V AC ... 264 V AC 119 V DC ... 374 V DC
W x H x D in mm	41 x 278 x 108

	24 V / 104 A NEW
Type	TRIO-PM/1AC/24DC/2500W
Item no.	1635194

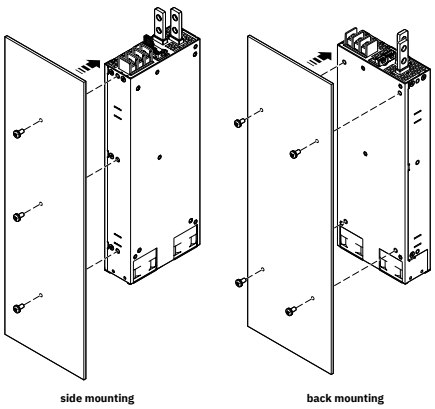
Flexible mounting versions

The TRIO POWER power supplies with up to 2.5 kW are characterized by their flexible mounting on the control cabinet panel.

Various mounting versions enable customized use of the devices. Both lateral attachment and mounting on the rear panel of the housing are possible.

Furthermore, there is no derating with any of the mounting versions.

With its compact design, the TRIO POWER power supply for panel mounting achieves a high power density with low losses.



Protective functions, smart diagnostics, and parallel connection capability

The TRIO POWER power supply is particularly robust and reliable due to its integrated protective functions. They protect against unexpected and harmful voltages and currents.

Comprehensive monitoring is possible with the TRIO POWER power supply for panel mounting: With the LED signaling and CAN bus interface, you can quickly and easily identify the status of your power supply. This predictive maintenance function enables you to intervene before the system fails.

Direct parallel connection, thanks to the integrated ORING diode, allows you to create a redundant system that contributes to the security of supply for your application. In addition, a power increase of up to 10 kW is possible.

Power supplies for rack mounting

Power conversion in the 19" rack

The AC/DC power module from the TRIO family enables bidirectional power conversion in various areas of application. With connection technology on the front and a DC voltage of up to 1,000 V, it can be used in a variety of ways. The power module is particularly suitable for use in battery storage systems.

Your advantages

- Use in a range of applications, including energy storage systems, e-mobility, and DC technologies
- Bidirectional functionality enables energy to be drawn from the grid and also fed into the grid
- 19" standard with front connection technology for flexible mounting
- Choice between grid-connected and off-grid operation

	TRIO POWER, bidirectional
	
Input	3 x 260 V AC ... 530 V AC 200 V DC ... 1000 V DC
W x H x D in mm	483 x 89 x 520

	50 V DC ... 1000 V DC / 20 kW
Type	TRIO-HP/3AC/1KDC/20KW/BI
Item no.	1560712

Use in battery storage systems

When used in battery storage systems, the TRIO POWER power supply for rack mounting helps to optimally utilize the available energy.

As a mobile energy source, the battery storage system enables a reliable power supply that can replace generators. Surplus energy is also stored in battery storage systems. When a power failure or peak load occurs, the energy is fed back into the grid.

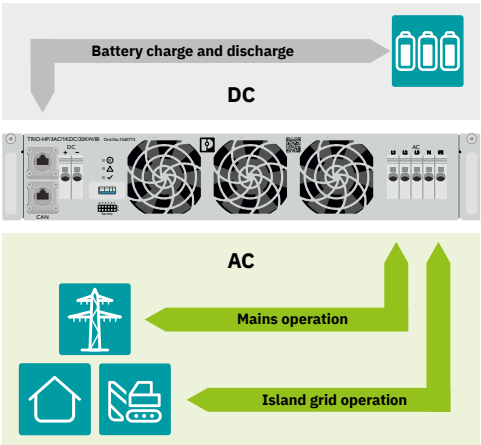
When used in battery storage systems, the TRIO POWER power module with 20 kW is used to provide the energy from the storage device and to buffer the energy in the storage system.

Bidirectional functionality

With the bidirectional power conversion of the TRIO POWER power module with 20 kW, it is possible to draw energy from the grid and feed it into the grid.

Further, the TRIO POWER power supply for rack mounting can be operated independently of the grid. It can supply loads in places where there is no grid connection, for example.

The power electronics combine the functions of a rectifier and inverter in a single device, thus enabling the efficient creation of a battery storage system.



DC/DC converters and DC/AC inverters

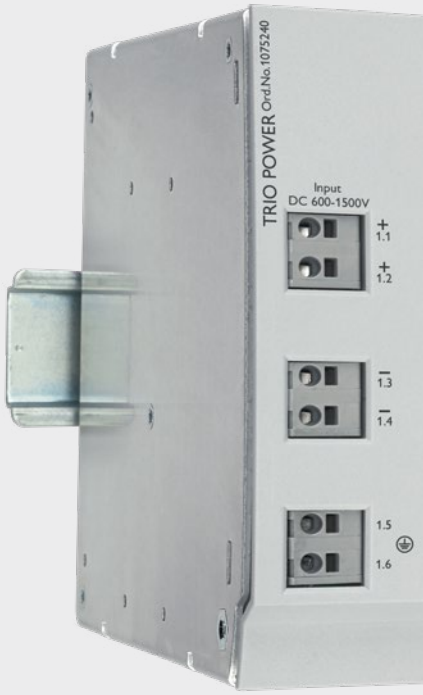
2

Everything for the right voltage

Phoenix Contact offers DC/DC converters for regulated DC voltage:

- With boost functions and SFB Technology
- For extreme requirements
- For photovoltaic applications

With the QUINT INVERTER, you can reliably convert your direct current into alternating current.



QUINT DC/DC converters for power >100 W

With SFB Technology

› More information starting on page 44

QUINT DC/DC converters for power <100 W

With static and dynamic boost

› More information starting on page 50

DC/DC converters for photovoltaic systems

For distributed power supply in the field

› More information starting on page 52

QUINT INVERTER

For generating alternating current in DC applications

› More information starting on page 54

QUINT DC/DC converters
With SFB Technology

Featuring high functionality and leading technologies, our QUINT DC/DC converters >100 W deliver safety and reliability. SFB Technology, static boost, dynamic boost, and preventive function monitoring ensure maximum system availability. You can also adjust signaling thresholds and characteristic curves individually.

SFB Technology
Designed by Phoenix Contact

Your advantages >100 W

- SFB Technology selectively trips standard miniature circuit breakers
- Preventive function monitoring reports critical operating states before faults occur
- Power reserves for easy system expansion and starting difficult loads
- High efficiency and long service life
- Free choice between Push-in and screw connection

Technologies and advantages

Regulated DC voltage

Avoid disturbances in your application by using DC/DC converters. They regenerate voltages so that the load is always supplied with a regulated DC voltage, even in the case of long cable lengths.

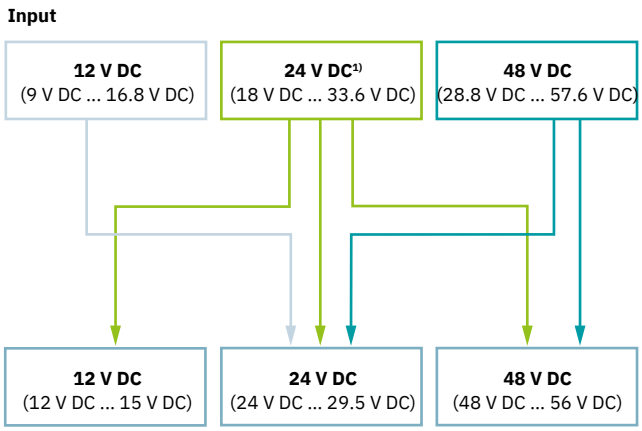
DC/DC converters can be used to alter the voltage level or enable the creation of independent supply systems by means of electrical isolation.

QUINT POWER >100 W

Powerful with SFB Technology

The DC/DC converters for the high power ranges feature SFB (Selective Fuse Breaking) Technology. It ensures that standard miniature circuit breakers are selectively tripped so that loads connected in parallel can continue to operate without interruption.

These DC/DC converters are suitable for high power with currents up to 20 A. Due to the large input voltage range, all common input and output voltages in performance classes up to 480 W are covered.



1) From 14 V DC ... 33.6 V DC during operation

Plus version for extreme ambient conditions

The Plus version with integrated decoupling MOSFET for 1+1 and n+1 redundancy provides symmetrical load distribution and increases system availability. It also satisfies the requirements for functional safety (SIL 2). It achieves SIL 3 in conjunction with the QUINT4-S-ORING/12-24DC/1X40/+ redundancy module.

Use in zone 2 potentially explosive areas is possible due to the protective coating and ATEX and IECEx approval in accordance with standards IEC 60079-0, IEC 60079-7, IEC 60079-11, and IEC 60079-15.

The new Plus version is rounded out by a wide temperature range of -40°C to +70°C for use under extreme ambient conditions.

The PCB protective coating protects against dust, corrosive gases, and 100% humidity. Failures due to creepage currents and electrochemical migration caused by corrosion are also prevented.

QUINT POWER >100 W

	QUINT POWER, Push-in connection		
			
Input	18 V DC ... 32 V DC	18 V DC ... 32 V DC	18 V DC ... 32 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 / 24 V / 5 A	24 V / 24 V / 10 A	24 V / 24 V / 20 A
Type	QUINT4-PS/24DC/24DC/5/PT	QUINT4-PS/24DC/24DC/10/PT	QUINT4-PS/24DC/24DC/20/PT
Item no.	2910119	2910120	2910121

	QUINT POWER, Push-in connection		
			
Input	18 V DC ... 32 V DC	18 V DC ... 32 V DC	
W x H x D in mm	36 x 130 x 125	50 x 130 x 125	

	24 V / 12 V / 8 A	24 V / 48 V / 5 A	
Type	QUINT4-PS/24DC/12DC/8/PT	QUINT4-PS/24DC/48DC/5/PT	
Item no.	2910122	2910123	

	QUINT POWER, Push-in connection		
			
Input	9 V DC ... 16.8 V DC	29 V DC ... 57.6 V DC	29 V DC ... 57.6 V DC
W x H x D in mm	36 x 130 x 125	36 x 130 x 125	50 x 130 x 125

	12 V / 24 V / 5 A	48 V / 24 V / 5 A	48 V / 48 V / 5 A
Type	QUINT4-PS/12DC/24DC/5/PT	QUINT4-PS/48DC/24DC/5/PT	QUINT4-PS/48DC/48DC/5/PT
Item no.	2910124	2910125	2910128

QUINT POWER >100 W

	QUINT POWER, screw connection		
			
Input	18 V DC ... 32 V DC	18 V DC ... 32 V DC	18 V DC ... 32 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 / 24 V / 5 A	24 V / 24 V / 10 A	24 V / 24 V / 20 A
Type	QUINT4-PS/24DC/24DC/5/SC	QUINT4-PS/24DC/24DC/10/SC	QUINT4-PS/24DC/24DC/20/SC
Item no.	1046800	1046803	1046805

	QUINT POWER, screw connection, with protective coating, integrated decoupling MOSFET		
			
Input	18 V DC ... 32 V DC		
W x H x D in mm	70 x 130 x 125		

	24 V / 24 V / 20 A / +		
Type	QUINT4-PS/24DC/24DC/20/SC/+		
Item no.	1046881		

	QUINT POWER, Push-in connection, with protective coating		
			
Input	18 V DC ... 32 V DC	18 V DC ... 32 V DC	
W x H x D in mm	36 x 130 x 125	50 x 130 x 125	

	24 V / 24 V / 5 A / CO	24 V / 24 V / 10 A / CO	
Type	QUINT4-PS/24DC/24DC/5/PT/CO	QUINT4-PS/24DC/24DC/10/PT/CO	
Item no.	2910132	2910133	

QUINT POWER

Power supplies for railway technology

Our QUINT POWER power supplies and QUINT POWER DC/DC converters are used both in signal technology and in rail vehicles. All devices are characterized by a high degree of reliability and safety. In addition, they are suitable for installation in confined spaces.

Our high-availability power supplies and DC/DC converters are harmonized with the typical requirements of signal technology. With a high efficiency factor and the use of high-quality components, including long-life capacitors, our products feature high reliability (MTBF >500,000 h) and a long service life. They also have an extended temperature range and electronics with a conformal coating for use in outdoor systems. DC/DC converters are used in the signal technology of signal boxes to convert control voltages. The built-in electrical isolation also decouples and suppresses two potentials, and an ungrounded supply network can be established. For digital signal boxes, we offer you converter solutions that can convert the direct current link voltage into conventional control voltage.

Our QUINT DC/DC converters in rail vehicles meet the same high requirements regarding quality, zero maintenance, and reliability as the power supplies. We offer DC/DC converters for all standard voltage levels of various train types. We guarantee high availability with redundantly connected and decoupled DC/DC converters. Furthermore, the requirements applicable in railway technology regarding temperature, fire protection, EMI resistance, vibration resistance, and environmental resistance, as well as the specific additional requirements of EN 50155, are adhered to.

3rd generation QUINT POWER

	QUINT POWER, screw connection	
		
Input	42 V DC ... 96 V DC	67.2 V DC ... 154 V DC
W x H x D in mm	48 x 130 x 125	48 x 130 x 125

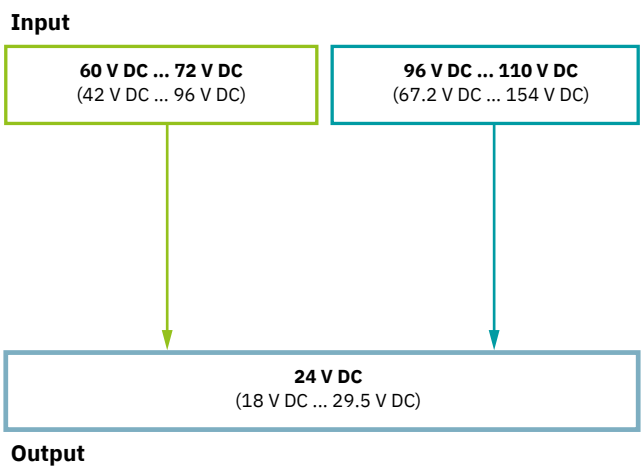
	60 V ... 72 V / 24 V / 10 A	96 V ... 110 V / 24 V / 10 A
Type	QUINT-PS/60-72DC/24DC/10	QUINT-PS/96-110DC/24DC/10
Item no.	2905009	2905010

	QUINT POWER, screw connection, with protective coating	
		
Input	42 V DC ... 96 V DC	67.2 V DC ... 154 V DC
W x H x D in mm	48 x 130 x 125	48 x 130 x 125

	60 V ... 72 V / 24 V / 10 A / CO	96 V ... 110 V / 24 V / 10 A / CO
Type	QUINT-PS/60-72DC/24DC/10/CO	QUINT-PS/96-110DC/24DC/10/CO
Item no.	2905011	2905012

3rd generation QUINT POWER with wide range input

The QUINT DC/DC converters with wide range input are ideal for applications in the railway industry and power generation, for example.



DC/DC converters and DC/AC inverters

QUINT POWER – powerful with boost function

QUINT DC/DC converters are also available in the power range up to 100 W. Particularly powerful and space-saving, these converters feature high efficiency, preventive function monitoring, and static and dynamic boost.

The low housing depth of 90 mm also enables installation in flat control cabinets, and DNV approval means they can be used in maritime environments. DC/DC converter startup at -40°C ensures reliable operation, even under extreme ambient conditions. In addition, you can choose between Push-in and screw connection.

Your advantages <100 W

- Power reserves for easy system expansion and starting difficult loads
- Preventive function monitoring reports critical operating states before faults occur
- High efficiency and long service life, with low power dissipation and low heating
- Slim-line design saves space in the control cabinet
- Free choice between Push-in and screw connection

QUINT POWER <100 W

	QUINT POWER, Push-in connection		
			
Input	9 V DC … 32 V DC	9 V DC … 32 V DC	22 V DC … 60 V DC
W x H x D in mm	22.5 x 106 x 90	32 x 106 x 90	45 x 106 x 90

	12 V … 24 V / 24 V / 1.3 A	12 V … 24 V / 24 V / 2.5 A	24 V … 48 V / 48 V / 2 A
Type	QUINT4-PS/12-24DC/24DC/1.3/PT	QUINT4-PS/12-24DC/24DC/2.5/PT	QUINT4-PS/24-48DC/48DC/2/PT
Item no.	1066716	1066714	1098676
	12 V … 24 V / 5 V … 15 V / 2.5 A		
Type	QUINT4-PS/12-24DC/5-15DC/2.5/PT		
Item no.	1066704		
		48 V … 110 V / 24 V / 2.5 A	
Type		QUINT4-PS/48-110DC/24DC/2.5/PT	
Item no.		1066708	

	QUINT POWER, screw connection		
			
Input	9 V DC … 32 V DC	9 V DC … 32 V DC	
W x H x D in mm	22.5 x 99 x 90	32 x 99 x 90	

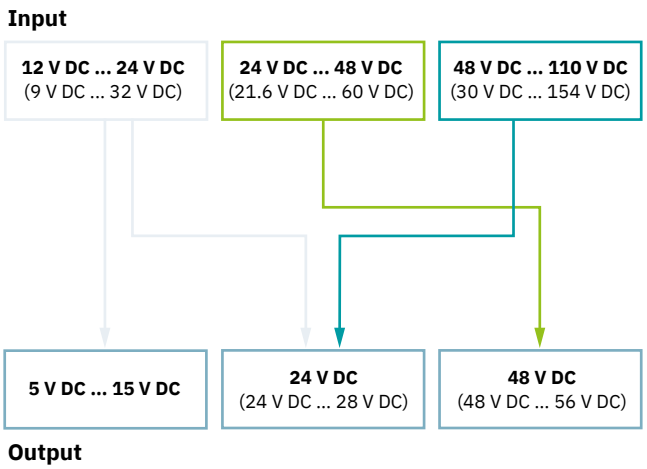
	12 V … 24 V / 24 V / 1.3 A	12 V … 24 V / 24 V / 2.5 A	
Type	QUINT4-PS/12-24DC/24DC/1.3/SC	QUINT4-PS/12-24DC/24DC/2.5/SC	
Item no.	1066703	1066718	

QUINT POWER <100 W

Powerful and space-saving

These space-saving devices from the QUINT family offer high functionality from a power range of 30 W and also cover the power range of 60 W for the first time.

The low housing depth of 90 mm enables installation in flat control cabinets, and DNV approval means they can be used in maritime environments. Device startup at -40°C ensures reliable operation under extreme ambient conditions.



DC/DC converters for photovoltaic applications

For distributed power supply

The DC/DC converters in the TRIO POWER family supply your system directly from the field and provide a reliable power supply even without a central grid. They are particularly well-suited for photovoltaic applications, where they also allow the central inverter to be started without a supplying grid.

Your advantages

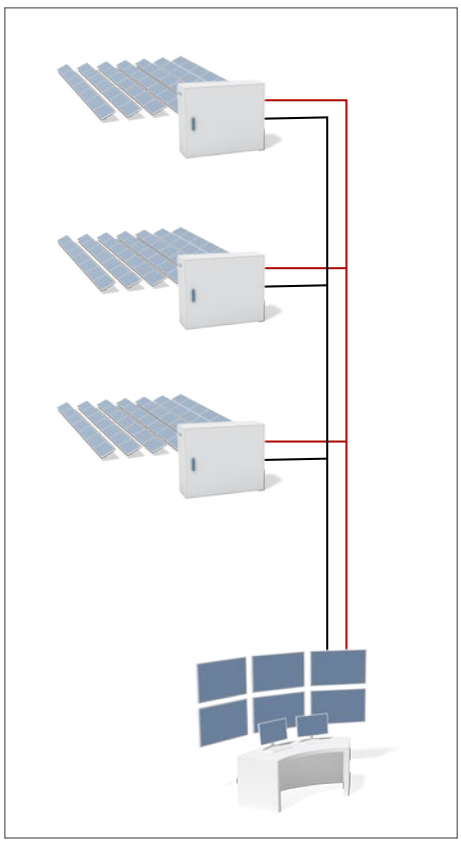
- Suitable for use in all photovoltaic systems with high input voltage due to conformity with standards UL 62109 and UL 1741
- High system availability with a robust design that ensures partial discharge resistance
- Direct, immediate supply from the solar field to supply the string monitoring function within string combiner boxes
- Quick and easy installation with Push-in connection

DC/DC converters for photovoltaic applications

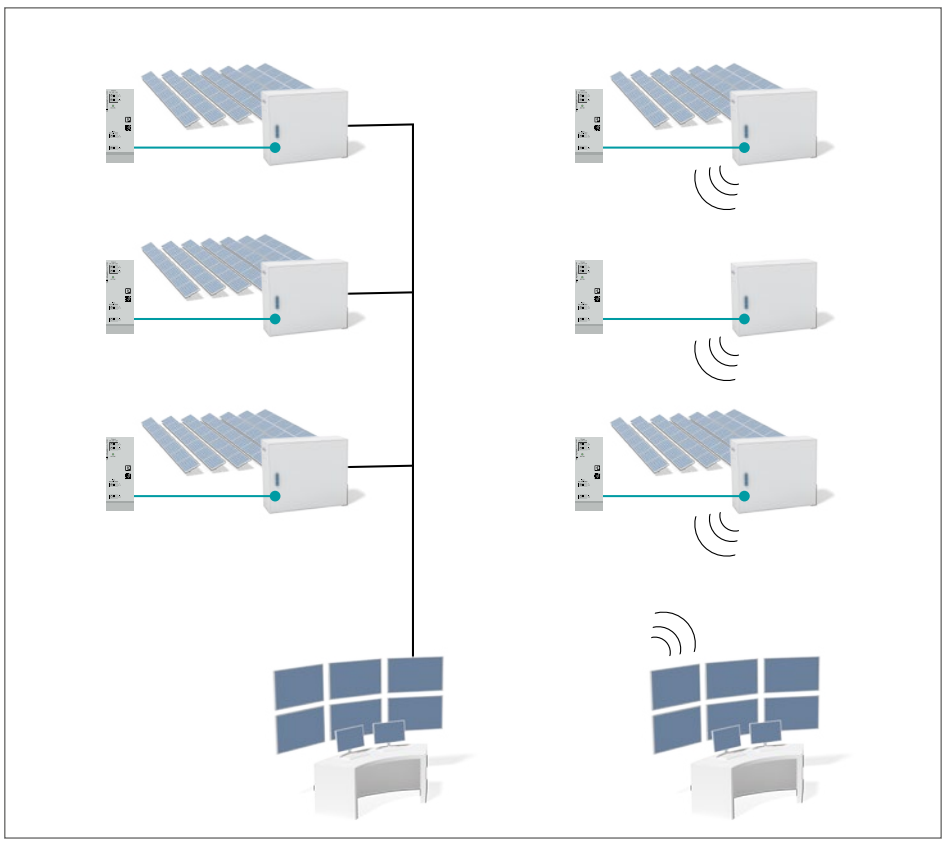
	TRIO POWER		UNO POWER
			
Input	450 V DC ... 1650 V DC	510 V DC ... 1650 V DC	300 V DC ... 1000 V DC
W x H x D in mm	48 x 130 x 115	88.5 x 130 x 160	55 x 90 x 84

	1500 V / 24 V / 1.5 A	1500 V / 24 V / 8 A	350 V ... 900 V / 24 V / 60 W
Type	TRIO-PS-2G/1500DC/24DC/1.5	TRIO-PS-2G/1500DC/24DC/8	UNO-PS/350-900DC/24DC/60W
Item no.	1107892	1075240	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.



The TRIO DC/DC converters and the UNO DC/DC converters enable direct connection to string voltages of up to 1,500 V DC. This means that the Combiner Box is supplied directly from the photovoltaic panel and eliminates any additional installation costs.

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

QUINT INVERTER

For generating alternating current

The new DC/AC inverter in the QUINT POWER family offers a compact solution to generate alternating current in DC applications. It delivers a pure sine curve and current with constantly high quality. The inverter also ensures the trouble-free supply of voltage-sensitive loads.

Your advantages

- Manual selection of AC output voltage via signal terminal enables worldwide use
- Pure sine curve at the output
- USB interface for connection to industrial PCs, for example
- Can be connected in parallel for various applications
- Compact design saves space

QUINT INVERTER

	QUINT INVERTER
	
Input	20 V DC ... 30 V DC
W x H x D in mm	180 x 130 x 125

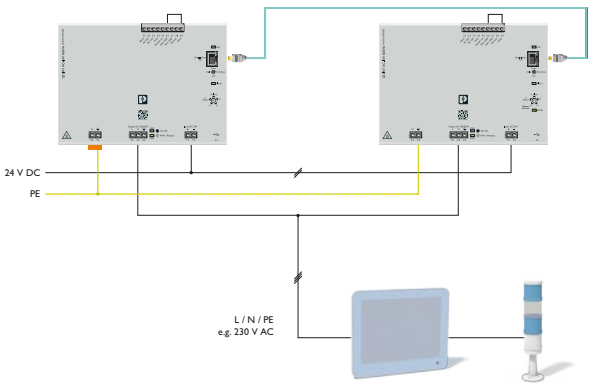
	480 W / 600 VA
Type	QUINT4-INV/24DC/1AC/600VA/USB
Item no.	1067325

	Accessories
	
W x H x D in mm	50 x 128 x 52

	PORTBRIDGE
Type	RJ45-PORT-BRIDGE/3XPARALLEL
Item no.	1205351

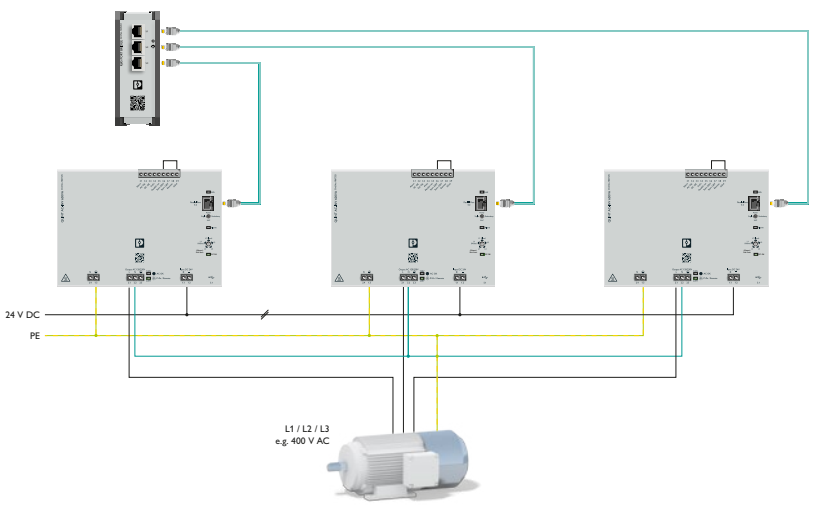
Parallel connection with synchronized AC output

You have the option to connect two devices in parallel. This increases the operational safety of your systems in the event of a power supply failure (redundancy) or it gives you the option to increase the power. You can double the output power by using the DC/AC inverter. Communication between the two devices synchronizes the phase relation in both operating modes.



Three-phase grid for drive application

You can connect three devices in parallel to create a three-phase grid using the RJ45 adapter. The inverters communicate with each other in order to synchronize the 120° phase shift in real time. This enables operation of three-phase drives.

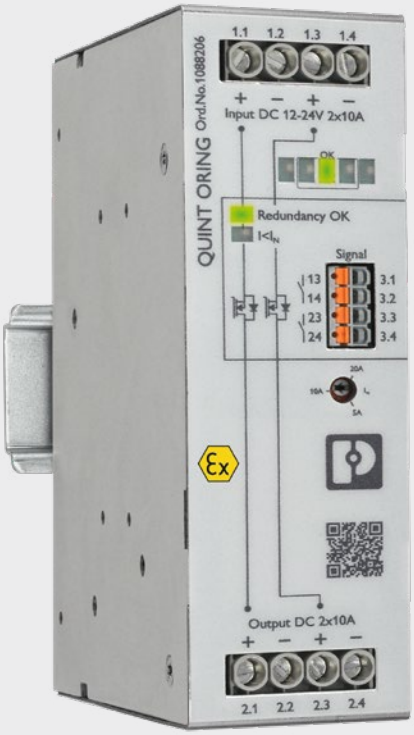


Redundancy modules

3

For high operational safety

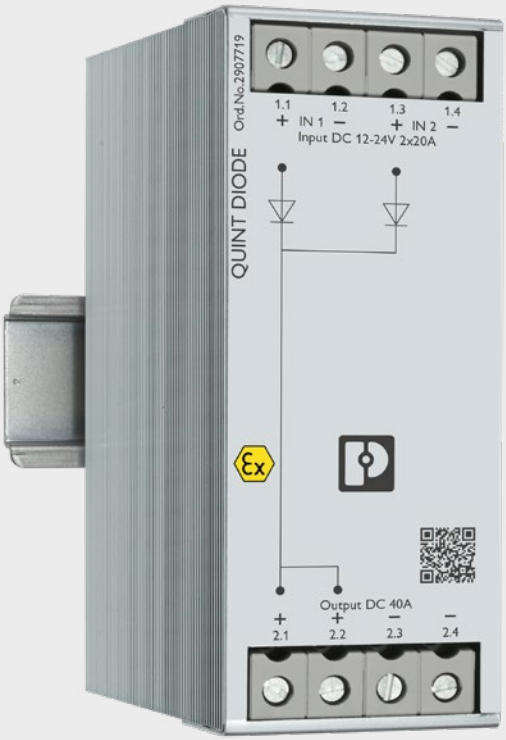
To prevent failures and downtime of complex applications, redundant power supply solutions are necessary. Two power supplies connected in parallel can be decoupled with either active or passive redundancy modules.



QUINT ORING

Provides permanent monitoring of the input voltage, output current, and decoupling section.

› More information starting on page 58



QUINT DIODE

Ensures consistent redundancy with redundant wiring through to the load with two positive and negative terminals.

› More information starting on page 62

Active and passive redundancy

Active redundancy with MOSFETs

Our single- and two-channel active redundancy module versions monitor themselves and the connection wiring through to the load. In conjunction with a QUINT POWER power supply, you can extend the system to include complete redundancy monitoring from the AC feed-in to the DC load. By continually monitoring the AC and DC voltage levels, the associated wiring, and the simultaneous decoupling of the load current, critical operating states can be detected and signaled early on.

Passive redundancy with diodes

Diodes enable simple decoupling of two power supplies on the DC side. This is useful in particular when power supplies are connected in parallel to increase power or for redundancy purposes. If one device fails due to malfunctions, the second power supply automatically takes over the entire supply for the DC load. The diode is not subject to preventive function monitoring, and the connecting cables through to the DC load are not monitored.

TRIO DIODE

With Push-in connection for easy installation.

› More information starting on page 62

UNO DIODE

Narrow diode module for decoupling power supplies connected in parallel.

› More information starting on page 62

STEP DIODE

Diode module for when space is limited in the control cabinet.

› More information starting on page 62

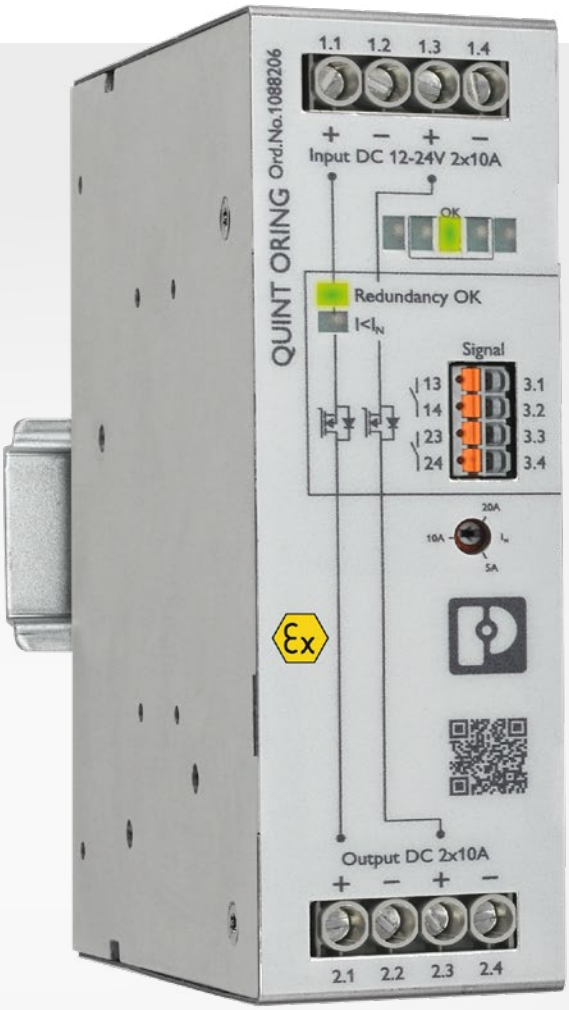
QUINT ORING

For decoupling, monitoring, and control

The new 4th generation QUINT ORING modules now feature application-specific surge protection, as well as two outputs that ensure maximum system availability. The ACB (Auto Current Balancing) Technology also doubles the service life of the redundantly operated power supplies, and thus contributes to minimizing the costs of your system.

Auto Current Balancing Technology

Designed by Phoenix Contact



Your advantages

- Preventive function monitoring through constant monitoring of the input voltage, output current, and decoupling section
- ATEX and IECEx approval for extreme ambient conditions
- Service life doubled with uniform load distribution
- Energy savings of 70% with MOSFETs
- Overvoltage protection at the output increases operational safety

Active redundancy modules

	QUINT ORING		Auto Current Balancing Technology Designed by Phoenix Contact
			
Input	8 V DC ... 29.5 V DC	8 V DC ... 29.5 V DC	18 V DC ... 28 V DC
W x H x D in mm	39 x 130 x 132	46 x 130 x 132	66 x 130 x 125

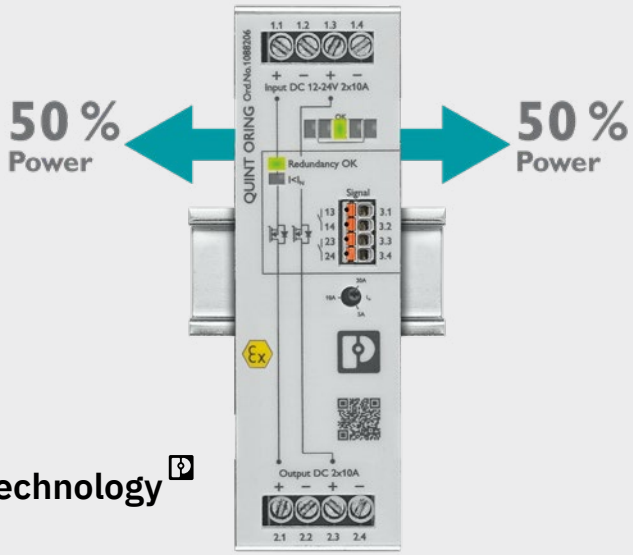
	12 V ... 24 V / 2 x 10 A / 1 x 20 A	12 V ... 24 V / 2 x 20 A / 1 x 40 A	24 V / 2 x 40 A / 1 x 80 A
Type	QUINT4-ORING/12-24DC/2X10/2X10	QUINT4-ORING/12-24DC/2X20/2X20	QUINT-ORING/24DC/2X40/1X80
Item no.	1088206	1088207	2902879

QUINT ORING with ACB (Auto Current Balancing) 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 now ensures balanced utilization of the power supply units, thereby doubling the service life of the redundant system.

Thanks to the use of modern MOSFET technology, the resulting thermal load is reduced by up to 70% compared to using a diode. This lower level of power dissipation ensures that all the control cabinet components stay cooler.

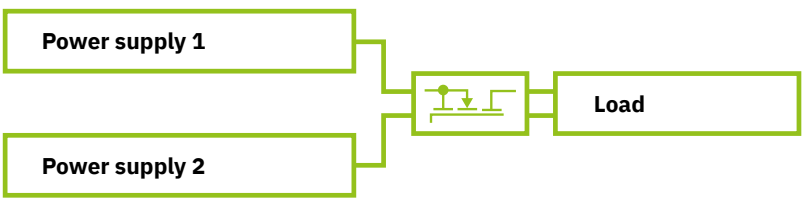


Auto Current Balancing Technology
Designed by Phoenix Contact

Decoupling, monitoring, and control

The QUINT ORING module ensures the decoupling of the power supplies and the constant monitoring of the input voltage and the output current. Any loss of redundancy is therefore reported immediately.

A system consisting of two QUINT POWER power supplies and a QUINT ORING module safely limits the output voltage to 32 V DC in the event of a fault.



Redundancy modules

QUINT S-ORING for decoupling and monitoring

QUINT S-ORING is an active, single-channel redundancy module for the separate structuring of a redundant system.

In combination with the 4th generation QUINT POWER power supplies, the input voltage and decoupling section are monitored continuously. The preventive function monitoring feature reports all critical operating states of the redundant system.

For maximum operational safety, the Plus version features overvoltage protection (OVP), whereby sensitive loads are protected against static overvoltages >28.8 V.

Your advantages

- Consistent redundancy through to the load
- Constant monitoring of input voltage and decoupling section
- Energy savings of 70% by decoupling with MOSFET
- Overvoltage protection at the output increases operational safety
- Protective coating with ATEX and IECEx approval for extreme ambient conditions

Active redundancy modules

	QUINT S-ORING	
		
Input	8 V DC ... 30 V DC	8 V DC ... 26 V DC
W x H x D in mm	32 x 130 x 125	32 x 130 x 125

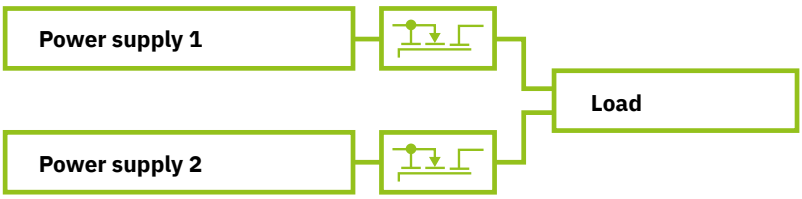
	12 V ... 24 V / 1 x 40 A	12 V ... 24 V / 1 x 40 A / +[1]
Type	QUINT4-S-ORING/12-24DC/1X40	QUINT4-S-ORING/12-24DC/1X40/+
Item no.	2907752	2907753

[1] Overvoltages are limited to 28.8 V.

Decoupling and monitoring

As an active, single-channel redundancy module, QUINT S-ORING is suitable for the separate structuring of a redundant system.

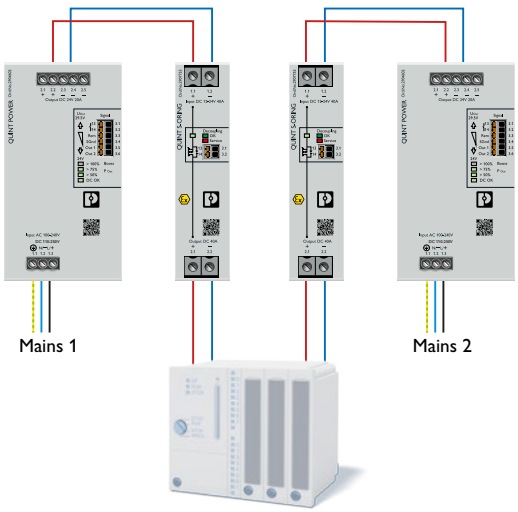
Combine the QUINT S-ORING module with the 4th generation QUINT POWER power supplies. This will provide you with a fully monitored system that immediately reports critical operating states.



Operational safety comes first

Availability is generally a top priority, especially in process engineering systems. Overvoltage protection (OVP) protects downstream loads from overvoltages greater than 28.8 V DC at the output.

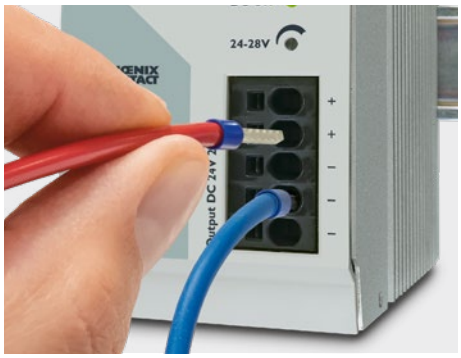
The redundant system made up of the QUINT POWER power supply and the QUINT4-S-ORING/+ active redundancy module ensures maximum operational safety with SIL certification. Use the system in applications with functional safety up to a safety integrity level of SIL 3 (IEC 61508).



Passive redundancy modules

QUINT DIODE

Robust design for high system availability, even under demanding ambient conditions.



TRIO DIODE

With Push-in connection for fast and easy installation.

UNO DIODE and STEP DIODE

For decoupling small loads.

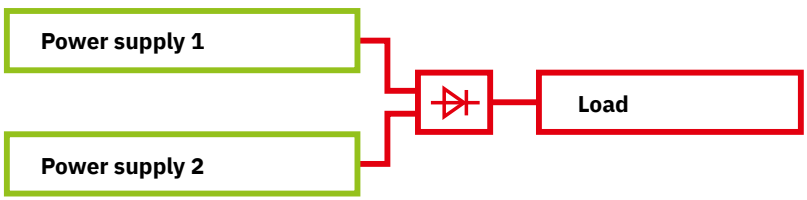
Redundancy modules for easy decoupling

Diode modules ensure safety when supplying the system.

STEP DIODE, UNO DIODE, TRIO DIODE, and QUINT DIODE are the ideal choice when it comes to easy decoupling of power supplies. They can be used for nominal voltages of 5 V DC to 48 V DC.

Decoupling via diodes

Easy decoupling of power supplies that are operated in parallel ensures a high level of availability. If the power supplies are decoupled, the load is supplied further, even in the case of a short-circuited power supply.



Passive redundancy modules

	QUINT DIODE	
		
Input	10 V DC ... 30 V DC	30 V DC ... 56 V DC
W x H x D in mm	50 x 130 x 125	50 x 130 x 125

	12 V ... 24 V / 2 x 20 A / 1 x 40 A	48 V / 2 x 20 A / 1 x 40 A
Type	QUINT4-DIODE/12-24DC/2X20/1X40	QUINT4-DIODE/48DC/2X20/1X40
Item no.	2907719	2907720

	TRIO DIODE	
		
Input	10 V DC ... 30 V DC	10 V DC ... 30 V DC
W x H x D in mm	35 x 130 x 115	41 x 130 x 115

	12 V ... 24 V / 2 x 10 A / 1 x 20 A	12 V ... 24 V / 2 x 20 A / 1 x 40 A
Type	TRIO2-DIODE/12-24DC/2X10/1X20	TRIO2-DIODE/12-24DC/2X20/1X40
Item no.	2907380	2907379

	UNO DIODE	STEP DIODE
		
Input	4.5 V DC ... 30 V DC	4.5 V DC ... 30 V DC
W x H x D in mm	22.5 x 90 x 84	18 x 90 x 61

	5 V ... 24 V / 2 x 10 A / 1 x 20 A	5 V ... 24 V / 2 x 5 A / 1 x 10 A
Type	UNO-DIODE/5-24DC/2X10/1X20	STEP3-DIODE/5-24DC/2X5/1X10/PT
Item no.	2905489	1283937

Uninterruptible power supplies

4

Protection against mains interruptions

Mains interruptions can have serious consequences. We provide the following solutions for high system availability, even in the event of a mains failure:

- DC and AC UPS modules with communication interfaces
- UPS modules with integrated power supply or integrated battery module
- Comprehensive selection of battery modules

DC UPS

- QUINT UPS with IQ Technology
- MINI and TRIO UPS with integrated power supply
- QUINT, UNO, and STEP UPS with integrated battery module

› More information starting on page 68

DC UPS with integrated capacitor and buffer modules

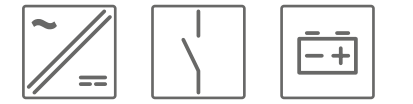
- With double-layer capacitors
- With electrolytic capacitors

› More information starting on page 108

Failsafe protection for every application

Create your own individual UPS solution – tailored to your application:

Power supply, UPS module, and battery module



Power supply | UPS module | Battery module

or

Power supply and CAP module

Power supply | UPS module | CAP module

AC UPS

- QUINT UPS with IQ Technology
- TRIO UPS with integrated battery module

› More information starting on page 92

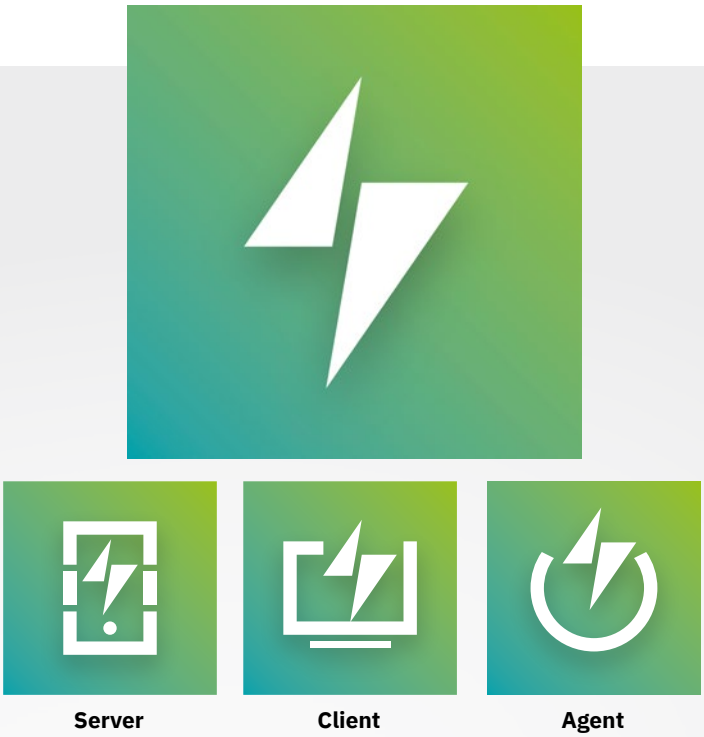
Battery modules

- Different technologies and capacities for your requirements

› More information starting on page 106

POWER MANAGEMENT SUITE

Monitor and configure several power supply and UPS systems simultaneously with our POWER MANAGEMENT SUITE software. The intelligent communication functions inform you as soon as a situation becomes critical. This reduces the amount of maintenance work needed and increases the availability of your system. All QUINT and TRIO devices with USB, RS-485, or EtherNet/IP™ interface are supported. The software is available as a free download.



Your advantages

- Comprehensive system monitoring: monitor several power supply and UPS systems from different PCs
- Easy configuration: all connected systems are configured via the user interface directly on the system or via a control room
- Clear, user-friendly dashboard
- PC shutdown: one or more PCs can be shut down in a controlled manner in the event of a mains failure
- Modular setup: environment tailored in accordance with the application

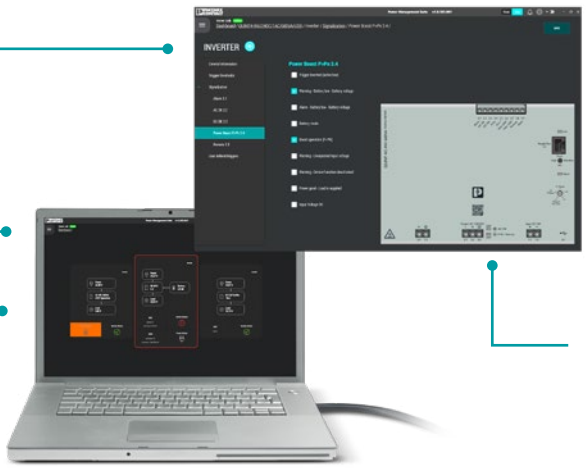
POWER MANAGEMENT SUITE

How our POWER MANAGEMENT SUITE works

Easy configuration
All connected systems can be configured via the user interface directly on the system or via a control room

Dashboard
Clear, user-friendly dashboard with an overview of all systems

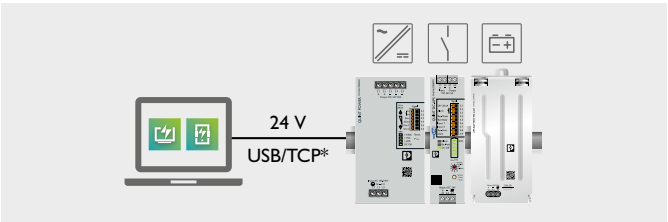
PC shutdown
One or more PCs can be shut down in a controlled manner in the event of a mains failure



Comprehensive system monitoring
Monitor several power supply and UPS systems from different PCs

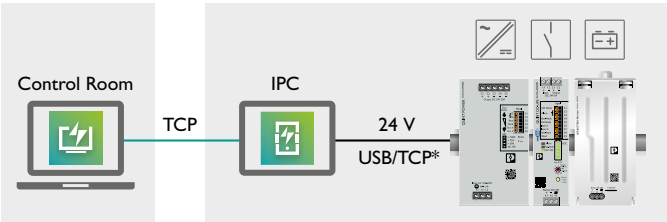
Modular setup
Environment tailored in accordance with the application

Applications



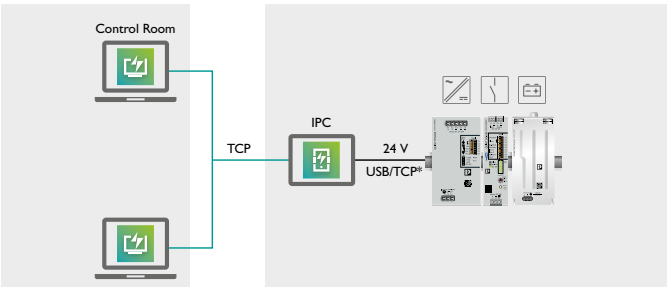
Single-user

An industrial PC is connected directly to the Phoenix Contact power supply system via USB or Ethernet cable. The system supplies the industrial PC with power. In the event of a mains failure, the system and the industrial PC undergo a controlled shutdown. In addition, the industrial PC is used to monitor and configure the system.



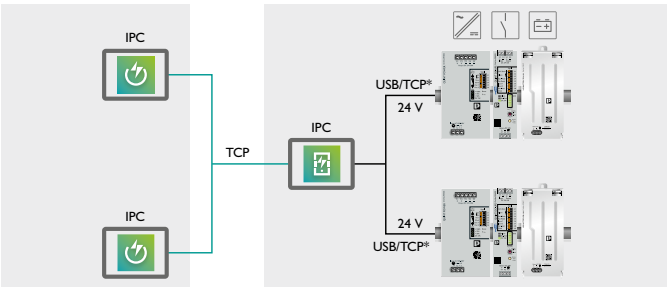
Local network type 1

An industrial PC is connected directly to the Phoenix Contact power supply system via USB or Ethernet cable. An additional PC connected to the local network is to be used to monitor and configure the system.



Local network type 2

You can also realize type 1 with several clients in a local network. To do so, install the POWER MANAGEMENT SUITE client module on an additional PC.



Local network type 3

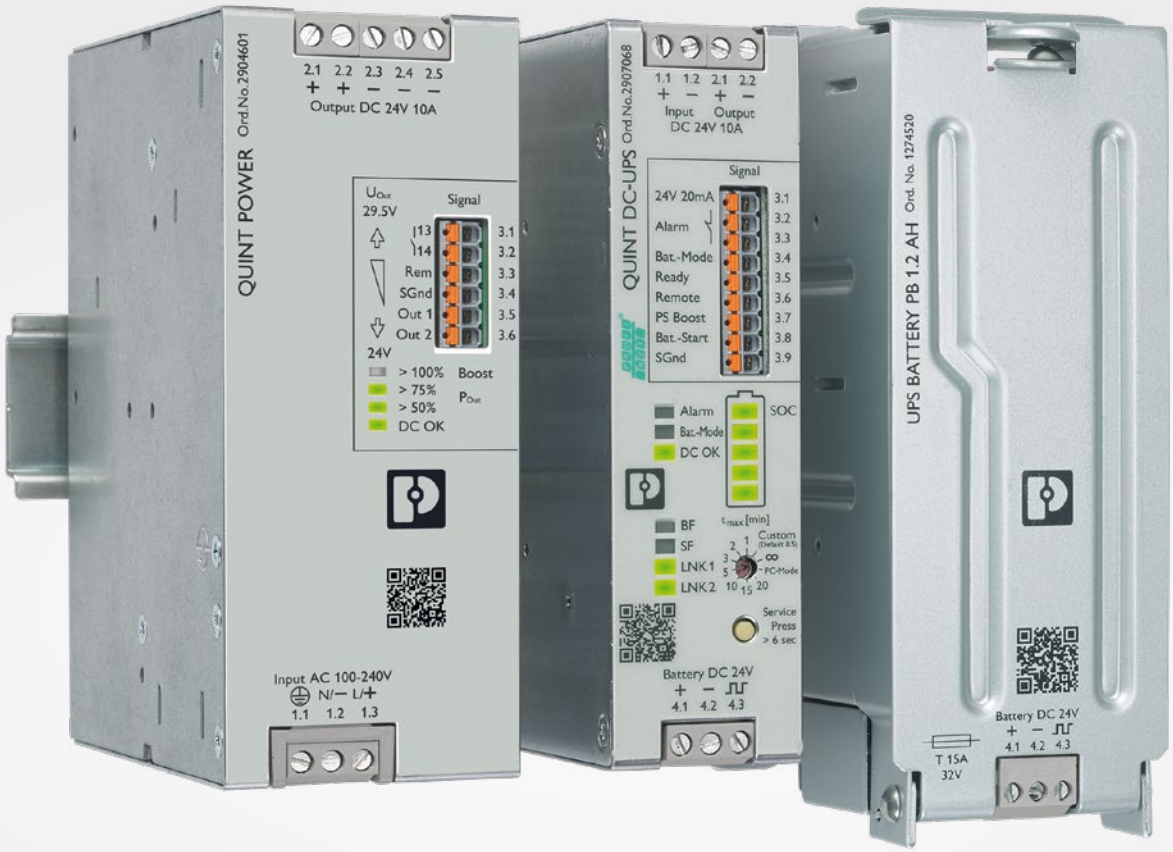
In addition to type 2, you also have the option of connecting your PC to several systems at the same time. To do so, you have to connect the industrial PC on which the POWER MANAGEMENT SUITE server is installed to an additional system via USB or Ethernet cable.

Supplying DC loads without mains

For risk-free system operation

Our uninterruptible power supplies for DC applications supply your application reliably even when the supply network fails.

Select your DC UPS – intelligent with IQ Technology or space-saving with integrated battery module or integrated power supply.



DC UPS

QUINT UPS

You will find the QUINT UPS modules and corresponding battery modules starting on page 70.

With integrated power supply

Space-saving solution – all you have to do is add the battery module.

More information starting on page 78

With integrated battery module

Space-saving solution – all you have to do is connect the power supply upstream.

More information starting on page 90

QUINT UPS for DC applications

Reliably protect your DC loads against power supply failure. The QUINT DC UPS for 24 V DC with output currents of 5 A to 40 A is suitable for mains interruptions that last for up to several hours.

Monitor and optimize your battery module automatically with IQ Technology. The POWER MANAGEMENT SUITE configuration and management software and data cables from Phoenix Contact are available for this purpose.

Substantial power reserve
- For mains and battery operation
- Power Boost static power reserve
- SFB Technology (page 9)

Easy integration into industrial networks via interfaces
- PROFINET
- EtherNet/IP™
- Modbus/TCP
- EtherCAT®
- RS-485
- USB

IQ Technology

Designed by Phoenix Contact

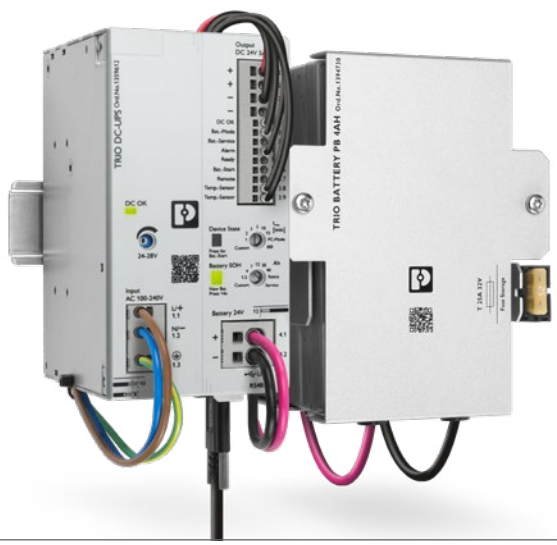
Adaptive current management
- For fast recharging and high availability of the battery module

TRIO UPS with integrated power supply

The TRIO DC UPS with integrated power supply supplies your DC loads reliably and with minimal space requirements.

You can easily shut down connected industrial PCs via the integrated USB interface. Startup from the battery module is possible even without mains input, thus simplifying the commissioning process. You can safeguard your system for up to several hours with the large selection of battery modules. With the POWER MANAGEMENT SUITE software, you can optimally adapt the behavior of the UPS to your application.

You will find all TRIO UPS modules and the corresponding battery modules on page 78.



Uninterruptible power supplies

QUINT DC UPS with IQ Technology – for industrial networks

The first intelligent UPS with integrated Ethernet interface for integration into established industrial networks. The UPS modules for 24 V DC with output currents ranging from 5 A to 40 A enable you to create a custom solution consisting of a power supply, UPS module, and battery module. With IQ Technology and a powerful battery charger, the battery management system (BMS) ensures high system availability.

You will find all the QUINT devices with the corresponding battery modules starting on page 74.

IQ Technology
Designed by Phoenix Contact

Modbus

PROFINET

EtherNet/IP

RS-485

EtherCAT

USB

Your advantages

- Evaluation of the state of health (SOH) and state of charge (SOC) with the intelligent battery management system (BMS)
- Automatic recognition of battery capacities and technologies (Pb, 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; loads connected in parallel continue to work

QUINT DC UPS

	QUINT UPS			
				
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
	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
Item 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™ Modbus/TCP	QUINT4-UPS/ 24DC/24DC/5/EIP	QUINT4-UPS/ 24DC/24DC/10/EIP	QUINT4-UPS/ 24DC/24DC/20/EIP	QUINT4-UPS/ 24DC/24DC/40/EIP
Item 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
Item no.	2906996	2907070	2907076	2907081
		24 V / 10 A / RS-485 NEW	**24 V / 20 A / RS-485** NEW	
Type: RS-485		QUINT4-UPS/ 24DC/24DC/10/485	QUINT4-UPS/ 24DC/24DC/20/485	
Item no.		1322768	1322782	
	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
Item 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
Item no.	2906990	2907066	2907071	2907077

All devices support SFB Technology.

QUINT CHARGER – charging rectifier for the DIN rail

With the QUINT CHARGER, the additional charging device for QUINT DC UPS, you can charge batteries more quickly. The temperature-optimized charging process increases the service life of the battery module, while the higher charging current reduces the charging time.

The two devices communicate via system communication. The charging parameters are configured via the USB interface. The battery status is indicated via LEDs and signal contacts.

You will find the corresponding battery modules starting on page 74.

	QUINT CHARGER
	
Input	85 V AC ... 264 V AC 110 V DC ... 250 V DC
W x H x D in mm	60 x 130 x 126

	24 V / 10 A
Type	QUINT4-CHARGER/1AC/24DC/10
Item no.	2907990

Uninterruptible power supplies

IQ Technology for an intelligent UPS system

IQ Technology is the key to an intelligent power supply solution. An intelligent UPS with IQ Technology monitors and optimizes the battery module, reduces maintenance effort, and increases the availability of your systems.

The DC UPS determines all the relevant states of the battery module. This ensures the crucial transparency required to guarantee supply stability and the best possible utilization of the battery module at all times.

The intelligent battery management feature calculates the available remaining buffer time and informs you as soon as a threshold value is reached. In this way, your system works as long as possible and is shut down before the battery voltage runs out.

The connected battery module is detected automatically. The optimally adjusted charging characteristic maximizes the service life of the battery module. The adapted charging current ensures the quickest possible recharging and availability of the energy storage unit.

You can keep an eye on your system at all times with the intelligent IQ Technology devices. Thanks to the integrated interfaces for PROFINET, EtherNet/IP™, EtherCAT®, RS-485, and USB, you can monitor and parameterize your system at any time with the QUINT DC UPS and QUINT AC UPS with USB interface. Furthermore, the system can be shut down in a safe state at any time.

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

With the intelligent QUINT DC UPS for integration into established industrial networks, you are ready for Industry 4.0. The integrated interfaces enable you to monitor, parameterize, or shut down the system in a safe state at any time, regardless of location.

Interfaces

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

- PROFINET
- EtherNet/IP™
- Modbus/TCP
- EtherCAT®
- RS-485

Our QUINT DC UPS solutions feature a large selection of network technologies and are available in various performance classes (5 A, 10 A, 20 A, 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 input and output voltages and the associated currents
- PC shutdown function: reliable shutdown of the IPC in the event of mains failure without any data loss, and autostart of the IPC when the mains power is restored
- Cold restart function: UPS startup, incl. connected loads, even without mains power

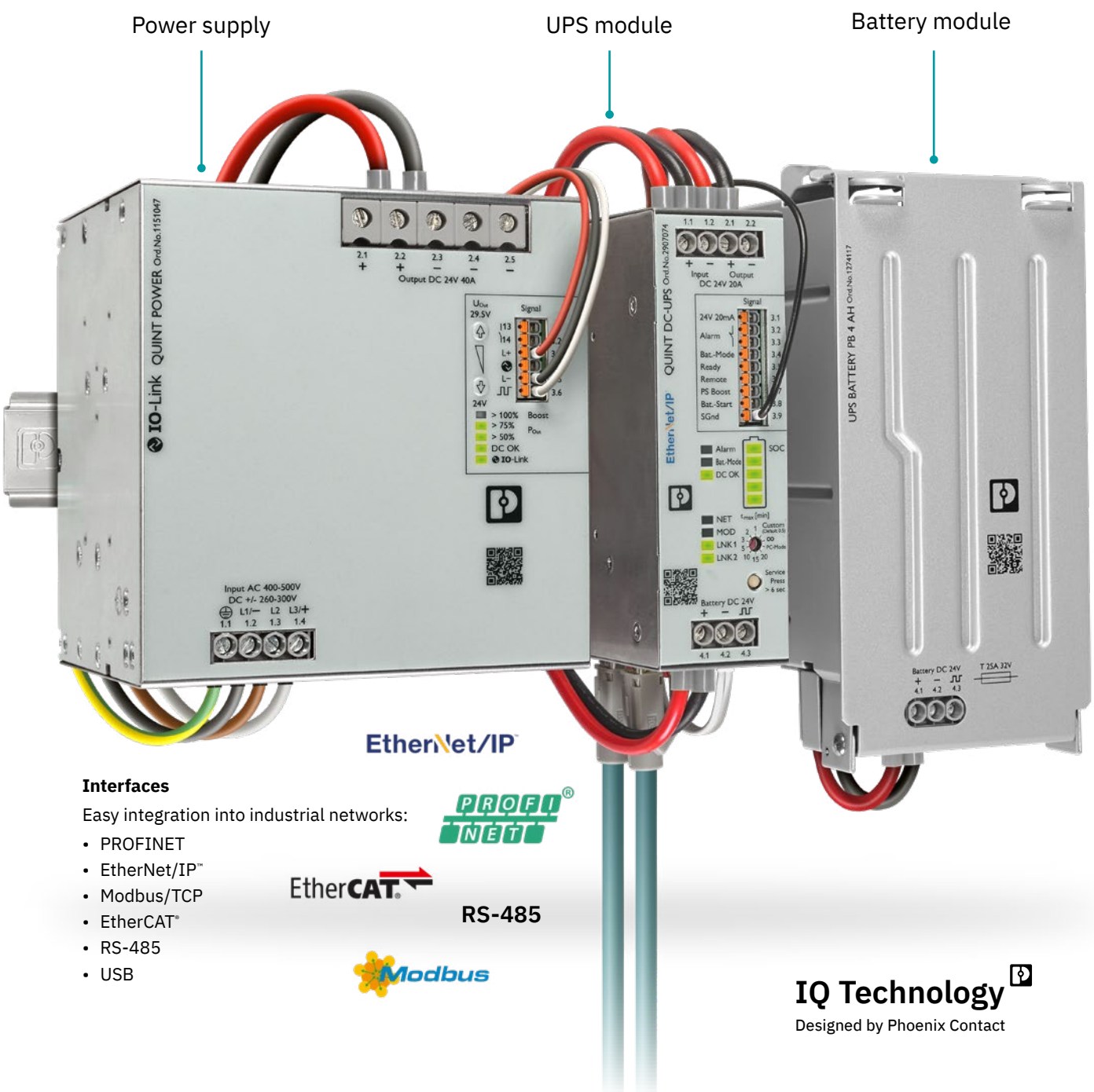
Function blocks

We include the corresponding function blocks for the following engineering environments so that the QUINT DC UPS can be commissioned quickly:

- PLCnext
- 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.



Interfaces

Easy integration into industrial networks:

- PROFINET
- EtherNet/IP™
- Modbus/TCP
- EtherCAT®
- RS-485
- USB

IQ Technology

Designed by Phoenix Contact

System communication

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

Intelligent Battery Management SOC (State of Charge)

Describes the current state of charge and the remaining buffer time of the battery module.

Intelligent Charging

Adapts the charging current, and thereby ensures fast recharging and availability.

Intelligent Battery Management SOH (State of Health)

Reports on the remaining lifetime of the battery module and provides early warning of failures.

QUINT DC UPS and battery module

Select your combination of QUINT DC UPS and battery module here

The UPS modules for 24 V DC with output currents ranging from 5 A to 40 A enable you to create a custom solution consisting of a power supply, UPS module, and battery module. The QUINT DC UPS is available with integrated interfaces for PROFINET, EtherNet/IP™, EtherCAT®, and USB. There are also versions without an interface if network integration is not required.

	UPS-BAT/PB			
				
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

	1.2 Ah	4 Ah	7 Ah	12 Ah
Type	UPS-BAT/PB/24DC/1.2AH	UPS-BAT/PB/24DC/4AH	UPS-BAT/PB/24DC/7AH	UPS-BAT/PB/24DC/12AH
Item no.	1274520	1274117	1274118	1274119

	QUINT UPS				... with dual output
					
W x H x D in mm	35 x 130 x 132	35 x 130 x 132	40 x 130 x 132	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 battery modules UPS/BAT/...	LI VRLA-WTR PB (1.2 Ah ... 40 Ah) (max. 40 Ah)	LI VRLA-WTR PB (1.2 Ah ... 40 Ah) (max. 80 Ah)	LI VRLA-WTR PB (2.5 Ah ... 110 Ah) (max. 135 Ah)	LI VRLA-WTR PB (5 Ah ... 110 Ah) (max. 135 Ah)	LI VRLA-WTR PB (1.2 Ah ... 40 Ah) (max. 60 Ah)

	UPS-BAT/PB			
				
W x H x D in mm	155 x 168 x 183	333 x 173 x 199	350 x 214 x 332	

	20 Ah	40 Ah	110 Ah NEW	
Type	UPS-BAT/PB/24DC/20AH	UPS-BAT/PB/24DC/40AH	UPS-BAT/PB/24DC/110AH	
Item no.	1348516	1354641	1474660	

Buffer times for QUINT DC UPS with Pb battery module

Select the battery module for your QUINT DC UPS here.

Example:
7 A is to be buffered for 45 min.

→ ■
→ QUINT4-UPS/24DC/24DC/10A and
→ UPS-BAT/PB/24DC/12AH

Load Current	Buffertime ↓																												
	Minutes														Hours														
	1	2	3	4	5	6	7	8	9	10	20	30	40	45	50	1	2	3	4	5	6	7	8	9	10	12	14	16	18	20	50	100
1 A																														2x		
2 A																														2x		
3 A																												2x	2x	2x		
5 A																								2x	2x	2x	2x	2x				
7 A																				2x	2x	2x	2x	2x	2x							
10 A																			2x	2x	2x	2x	2x									
15 A																	2x	2x	2x													
20 A																	2x	2x														
25 A																	2x															
30 A																2x																
35 A														2x	2x	2x																
40 A													2x	2x	2x	2x																

2x: In this case, two battery modules of the same capacity are required.
The data is based on an ambient temperature of +25°C at the beginning of life.

QUINT DC UPS and battery module

Select your combination of QUINT DC UPS and battery module here

The UPS modules for 24 V DC with output currents ranging from 5 A to 40 A enable you to create a custom solution consisting of a power supply, UPS module, and battery module. The QUINT DC UPS is available with integrated interfaces for PROFINET, EtherNet/IP™, EtherCAT®, and USB. There are also versions without an interface if network integration is not required.

	UPS-BAT/LI			
				
W x H x D in mm	87 x 197 x 119	135 x 202 x 110	133 x 197 x 119	199 x 197 x 119

	64 Wh / 2.5 Ah NEW	128 Wh / 5 Ah	189 Wh / 7.4 Ah NEW	284 Wh / 11.1 Ah NEW
Type	UPS-BAT/LI/ 24DC/64WH	UPS-BAT/LI/ 24DC/128WH	UPS-BAT/LI/ 24DC/189WH	UPS-BAT/LI/ 24DC/284WH
Item no.	1460921	1396415	1460922	1460923

Buffer times for QUINT DC UPS with lithium battery module

Select the battery module for your QUINT DC UPS here.

Example:
7 A is to be buffered for 45 min.

→ ■
→ QUINT4-UPS/24DC/24DC/10A and
→ UPS-BAT/LI/24DC/189WH

Load Current	Buffertime																								
	Minutes													↓		Hours									
	1	5	6	7	8	9	10	15	20	25	30	35	40	45	55	1	2	3	4	5	6	7	8	9	10
1 A																									
2 A																									
3 A																									
5 A																									
→ 7 A																									
10 A																									
15 A																									
20 A																									
25 A																									
30 A																									
35 A																									
40 A																									

The data is based on an ambient temperature of +25°C at the beginning of life.

	QUINT UPS				... with dual output
					
W x H x D in mm	35 x 130 x 132	35 x 130 x 132	40 x 130 x 132	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 battery modules UPS/BAT/...	LI VRLA-WTR PB (1.2 Ah ... 40 Ah) (max. 40 Ah)	LI VRLA-WTR PB (1.2 Ah ... 40 Ah) (max. 80 Ah)	LI VRLA-WTR PB (2.5 Ah ... 110 Ah) (max. 135 Ah)	LI VRLA-WTR PB (5 Ah ... 110 Ah) (max. 135 Ah)	LI VRLA-WTR PB (1.2 Ah ... 40 Ah) (max. 60 Ah)

	UPS-BAT/VRLA-WTR	
		
W x H x D in mm	172 x 177 x 178	358 x 174 x 169

	13 Ah	26 Ah
Type	UPS-BAT/VRLA-WTR/24DC/13AH	UPS-BAT/VRLA-WTR/24DC/26AH
Item no.	2320416	2320429

Buffer times for QUINT DC UPS with VRLA-WTR battery module

Select the battery module for your QUINT DC UPS here.

Example:
20 A is to be buffered for 45 min.

→ ■
→ QUINT4-UPS/24DC/24DC/20A and
→ UPS-BAT/VRLA-WTR/24DC/26AH

Load Current	Buffertime																								
	Minutes ↓											Hours													
	10	12	15	20	25	30	35	40	45	50	55	1	2	3	4	5	6	7	8	9	10	12	14	16	18	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																										

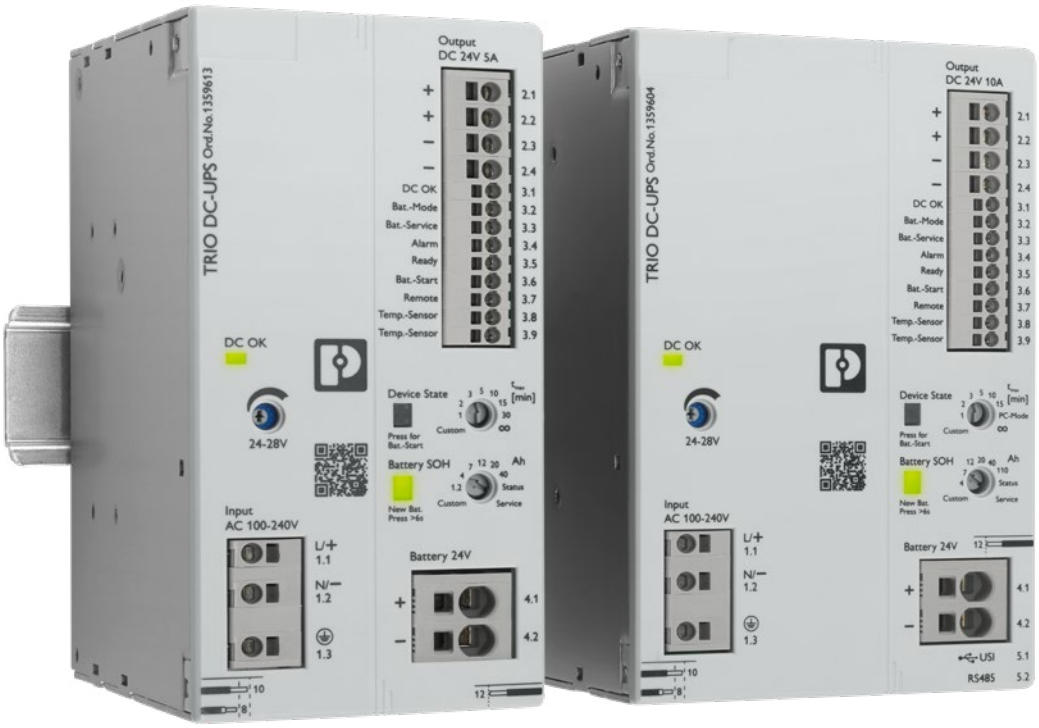
The data is based on an ambient temperature of +25°C at the beginning of life.

Uninterruptible power supplies

TRIO DC UPS with integrated power supply for high availability in the event of power failures

The 3rd generation TRIO DC UPS combines signaling, diagnostics, connection to IPCs and PLCs, and a cold restart function in one compact housing. Tool-free wiring with Push-in ensures easy handling. The dynamic boost and intelligent battery charging behavior make it particularly reliable.

The TRIO DC UPS combines a power supply and UPS in one compact housing. It provides a dynamic boost with 150% of the nominal current and a dynamic battery boost with up to 400% of the nominal current for short periods.



Your advantages

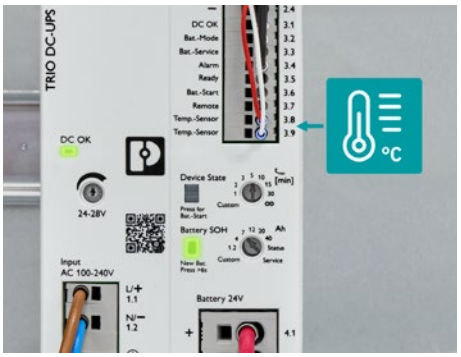
- Direct diagnostics with multicolor LEDs and signal contacts for a clear status display
- Easy handling ensured by tool-free wiring with Push-in connection
- Robust and reliable due to dynamic boost and intelligent battery charging behavior
- Space-saving by combining a power supply and UPS in one housing
- Smart parameterization and monitoring via interface connection

Direct diagnostics

The TRIO DC UPS provides direct diagnostics of the operating status via multicolor LEDs and signal contacts. The battery status is also clearly indicated, including functions such as the State of Health (SOH). Signal outputs that can be parameterized via the POWER MANAGEMENT SUITE (PMS) make it possible to customize monitoring.

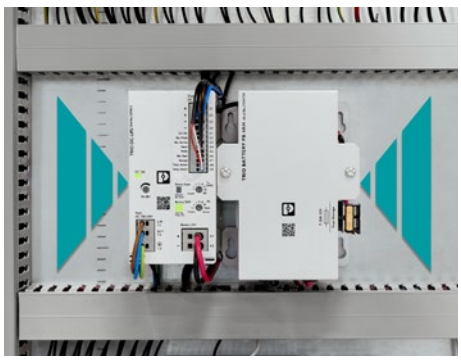
Easy handling

The combined device minimizes the installation effort with Push-in connection, as the power supply and UPS do not have to be wired separately. Buffer times are set and the battery capacity is selected directly on the device. The DC output voltage is set on the potentiometer. A reset after a battery change or a cold restart from the battery can be triggered by pressing a button.



Robust and reliable

The TRIO UPS provides a dynamic boost with 150% of the nominal current and a dynamic battery boost with up to 400% of the nominal current for short periods. A powerful charger ensures fast charging. A Pt 1000 temperature sensor enables intelligent, temperature-dependent charging by directly measuring the temperature of the battery.



Space-saving

The TRIO UPS from Phoenix Contact combines a power supply and UPS in one compact housing. Multiple devices can be installed directly next to each other without any power loss. With its compact dimensions, the TRIO UPS delivers more power than its predecessors.

Parameterization and monitoring

The TRIO UPS offers smart parameterization and monitoring via versatile interfaces. The screw-lock USB-C port also makes it robust for demanding applications. Connection to industrial PCs for configuration and monitoring is possible via the POWER MANAGEMENT SUITE. The RS-485 interface enables easy integration into Modbus/RTU networks.

Uninterruptible power supplies

The perfect combination

Supply DC loads reliably and save space with the TRIO uninterruptible power supplies. Mains input is no longer required for startup and connected industrial PCs are shut down easily via the integrated USB interface.

For an optimum solution with reliable performance, the TRIO battery module is the perfect addition to the TRIO UPS family. The TRIO DC UPS and battery module have a comprehensive approval package.

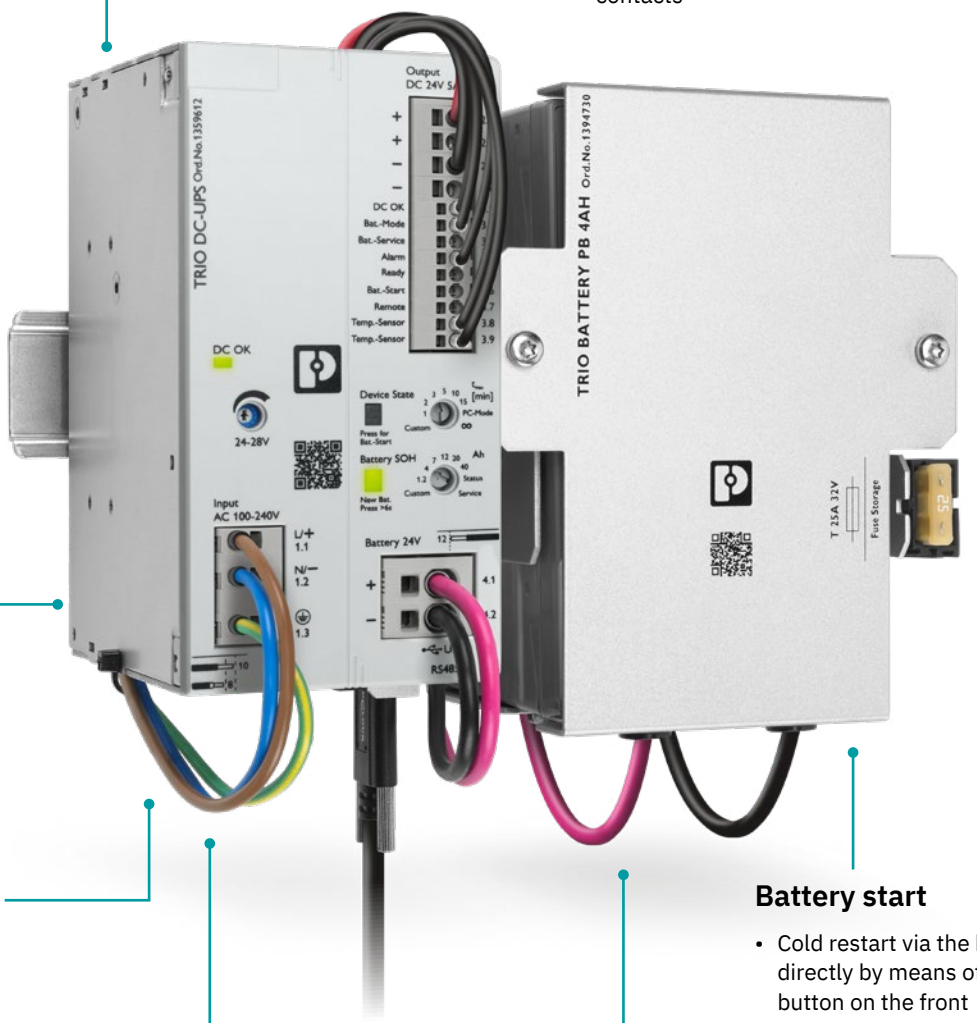
Choose your solution consisting of UPS and battery module from the various combination options, tailored to your system.

Temperature measurement

- Ambient temperature measurement and connection for external temperature measurement
- Intelligent, temperature-dependent battery charging behavior

Signaling

- Monitoring via input and output signal contacts



Direct diagnostics

- Representation of the device status via multicolor LEDs

Robust and reliable

- Dynamic boost with 150% and dynamic battery boost with up to 400% of the nominal current

Parameterization and monitoring

- Optional interface via RS-485 and USB-C

Battery start

- Cold restart via the battery directly by means of the button on the front

Easy handling

- Tool-free wiring with Push-in connection technology
- Easy connection of the battery module via preassembled cables

Transport and storage

- Metal housing with holder for the fuse and spacer clips

	TRIO UPS, 1~	
		
Input	85 V AC ... 264 V AC 110 V DC ... 250 V DC	85 V AC ... 264 V AC 110 V DC ... 250 V DC
W x H x D in mm	68 x 135 x 132	88 x 135 x 132

	24 V / 5 A NEW	24 V / 10 A NEW
Type	TRIO3-UPS/1AC/24DC/5	TRIO3-UPS/1AC/24DC/10
Item no.	1359613	1359610
	24 V / 5 A / 485-USB NEW	**24 V / 10 A / 485-USB** NEW
Type	TRIO3-UPS/1AC/24DC/5/485-USB	TRIO3-UPS/1AC/24DC/10/485-USB
Interface	RS-485/USB-C	RS-485/USB-C
Item no.	1359612	1359604

	TRIO BAT			
				
W x H x D in mm	52 x 141 x 108	115 x 154 x 113	164 x 159 x 114	233 x 159 x 114

	1.2 Ah NEW	4 Ah NEW	7 Ah NEW	12 Ah NEW
Type	TRIO-BAT/PB/24DC/1.2AH	TRIO-BAT/PB/24DC/4AH	TRIO-BAT/PB/24DC/7AH	TRIO-BAT/PB/24DC/12AH
Item no.	1394729	1394730	1384031	1394727

Buffer times for TRIO DC UPS with TRIO battery module

Select the battery module for your TRIO DC UPS here.

Example:
5 A is to be buffered for 10 min.

→ ■
→ TRIO3-UPS/1AC/24DC/5 and
→ TRIO-BAT/PB/24DC/4AH

Load Current	Buffertime																		
	Minutes							↓						Hours					
	1	2	3	5	7	8	9	10	20	30	40	45	50	1	2	3	5	8	10
1 A																			
2 A																			
3 A																			
→ 5 A																			
7 A																			
10 A																			
15 A																			
20 A																			

The data is based on an ambient temperature of +25°C at the beginning of life.

	TRIO UPS, 1~	
		
Input	85 V AC ... 264 V AC 110 V DC ... 250 V DC	85 V AC ... 264 V AC 110 V DC ... 250 V DC
W x H x D in mm	68 x 135 x 132	88 x 135 x 132

	24 V / 5 A NEW	24 V / 10 A NEW
Type	TRIO3-UPS/1AC/24DC/5	TRIO3-UPS/1AC/24DC/10
Item no.	1359613	1359610
	24 V / 5 A / 485-USB NEW	**24 V / 10 A / 485-USB** NEW
Type	TRIO3-UPS/1AC/24DC/5/485-USB	TRIO3-UPS/1AC/24DC/10/485-USB
Interface	RS-485/USB-C	RS-485/USB-C
Item no.	1359612	1359604

	UPS-BAT/PB	
		
W x H x D in mm	155 x 168 x 183	333 x 173 x 199

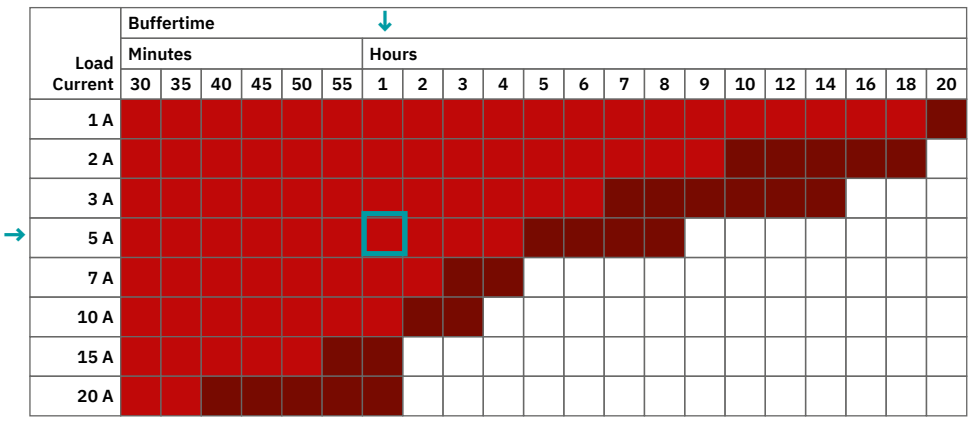
	20 Ah	40 Ah
Type	UPS-BAT/PB/24DC/20AH	UPS-BAT/PB/24DC/40AH
Item no.	1348516	1354641

Buffer times for TRIO DC UPS with Pb battery module

Select the battery module for your TRIO DC UPS here.

Example:
5 A is to be buffered for 1 h.

→ ■
→ TRIO3-UPS/1AC/24DC/5 and
→ UPS-BAT/PB/24DC/20AH



The data is based on an ambient temperature of +25°C at the beginning of life.

	UPS-BAT/VRLA-WTR	
		
W x H x D in mm	172 x 177 x 178	358 x 174 x 169

	13 Ah	26 Ah
Type	UPS-BAT/VRLA-WTR/24DC/13AH	UPS-BAT/VRLA-WTR/24DC/26AH
Item no.	2320416	2320429

Buffer times for TRIO DC UPS with VRLA-WTR battery module

Select the battery module for your TRIO DC UPS here.

Example:
7 A is to be buffered for 35 min.

→ ☐
→ TRIO3-UPS/1AC/24DC/10 and
→ UPS-BAT/VRLA-WTR/24DC/13AH

Load Current	Buffertime																								
	Minutes						↓					Hours													
	10	12	15	20	25	30	35	40	45	50	55	1	2	3	4	5	6	7	8	9	10	12	14	16	18	20
1 A																										
2 A																										
3 A																										
5 A																										
→ 7 A																										
10 A																										
15 A																										
20 A																										

The data is based on an ambient temperature of +25°C at the beginning of life.

TRIO DC UPS and battery module

Select your combination of TRIO DC UPS with integrated power supply and TRIO battery module here

The DC UPS with integrated power supply combines two functions in one housing. The compact solution saves space in the control cabinet and can be adapted to your individual requirements. Mains input is no longer required for startup. Connected industrial PCs can be shut down easily via the integrated USB interface.

Select the battery capacity according to your required buffer time. This makes it easy for you to put together your own individual complete system.

The perfect combination of TRIO DC UPS and TRIO battery module

By combining the TRIO UPS and a TRIO BAT battery module, you get a complete solution from a single source. No additional material is required for the connection. Push-in Technology makes it very easy to connect and combine the UPS and battery module.

Different product combinations are possible depending on the application and use case. These combination solutions ensure that your system is buffered reliably over the desired time period.

The new TRIO battery is the perfect addition to the TRIO UPS family. Choose the solution consisting of UPS and battery tailored perfectly to your requirements from the various combination options.

	TRIO UPS, 1~			TRIO UPS, 3~
				
Input	85 V AC ... 264 V AC 110 V DC ... 250 V DC	85 V AC ... 264 V AC 110 V DC ... 250 V DC	85 V AC ... 264 V AC 110 V DC ... 250 V DC	3 x 320 V AC ... 575 V AC 2 x 360 V AC ... 550 V AC
W x H x D in mm	60 x 130 x 60	68 x 130 x 68	88 x 130 x 160	88 x 130 x 160

	24 V / 5 A	24 V / 10 A	24 V / 20 A NEW	24 V / 20 A
Type	TRIO-UPS-2G/1AC/24DC/5	TRIO-UPS-2G/1AC/24DC/10	TRIO-UPS-2G/1AC/24DC/20	TRIO-UPS-2G/3AC/24DC/20
Interface	USB	USB	USB	USB
Item no.	2907160	2907161	1105556	2906367

	TRIO BAT			
				
W x H x D in mm	52 x 141 x 108	115 x 154 x 113	164 x 159 x 114	233 x 159 x 114

	1.2 Ah NEW	4 Ah NEW	7 Ah NEW	12 Ah NEW
Type	TRIO-BAT/PB/24DC/1.2AH	TRIO-BAT/PB/24DC/4AH	TRIO-BAT/PB/24DC/7AH	TRIO-BAT/PB/24DC/12AH
Item no.	1394729	1394730	1384031	1394727

Buffer times for TRIO DC UPS with TRIO battery module

Select the battery module for your TRIO DC UPS here.

Example:
5 A is to be buffered for 10 min.

→ ■
→ TRIO-UPS-2G/1AC/24DC/5 and
→ TRIO-BAT/PB/24DC/4AH

Load Current	Buffertime																		
	Minutes							↓						Hours					
	1	2	3	5	7	8	9	10	20	30	40	45	50	1	2	3	5	8	10
1 A																			
2 A																			
3 A																			
→ 5 A																			
7 A																			
10 A																			
15 A																			
20 A																			

The data is based on an ambient temperature of +25°C at the beginning of life.

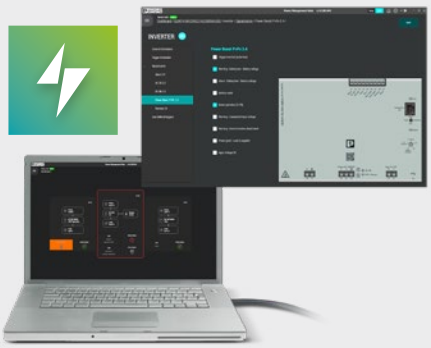
TRIO DC UPS and battery module

Select your combination of TRIO DC UPS with integrated power supply and battery module here

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

POWER MANAGEMENT SUITE

You can use the POWER MANAGEMENT SUITE to monitor and configure the TRIO UPS with the corresponding battery module. In the event of a mains failure, an IPC can be shut down in a controlled manner with the PC shutdown function.



	UPS-BAT/PB	
		
W x H x D in mm	155 x 168 x 183	333 x 173 x 199

	20 Ah	40 Ah
Type	UPS-BAT/PB/24DC/20AH	UPS-BAT/PB/24DC/40AH
Item no.	1348516	1354641

Buffer times for TRIO DC UPS with Pb battery module

Select the battery module for your TRIO DC UPS here.

Example:
5 A is to be buffered for 3 h.

→ ■
→ TRIO-UPS-2G/1AC/24DC/5 and
→ UPS-BAT/PB/24DC/20AH

Load Current	Buffertime ↓																				
	Minutes						Hours														
	30	35	40	45	50	55	1	2	3	4	5	6	7	8	9	10	12	14	16	18	20
1 A																					
2 A																					
3 A																					
→ 5 A																					
7 A																					
10 A																					
15 A																					
20 A																					

The data is based on an ambient temperature of +25°C at the beginning of life.

	TRIO UPS, 1~			TRIO UPS, 3~
				
Input	85 V AC ... 264 V AC 110 V DC ... 250 V DC	85 V AC ... 264 V AC 110 V DC ... 250 V DC	85 V AC ... 264 V AC 110 V DC ... 250 V DC	3 x 320 V AC ... 575 V AC 2 x 360 V AC ... 550 V AC
W x H x D in mm	60 x 130 x 60	68 x 130 x 68	88 x 130 x 160	88 x 130 x 160

	24 V / 5 A	24 V / 10 A	24 V / 20 A NEW	24 V / 20 A
Type	TRIO-UPS-2G/1AC/24DC/5	TRIO-UPS-2G/1AC/24DC/10	TRIO-UPS-2G/1AC/24DC/20	TRIO-UPS-2G/3AC/24DC/20
Interface	USB	USB	USB	USB
Item no.	2907160	2907161	1105556	2906367

	UPS-BAT/VRLA-WTR	
		
W x H x D in mm	172 x 177 x 178	358 x 174 x 169

	13 Ah	26 Ah
Type	UPS-BAT/VRLA-WTR/24DC/13AH	UPS-BAT/VRLA-WTR/24DC/26AH
Item no.	2320416	2320429

Buffer times for TRIO DC UPS with VRLA-WTR battery module

Select the battery module for your TRIO DC UPS here.

Example:
7 A is to be buffered for 35 min.

→ ☐
→ TRIO-UPS-2G/1AC/24DC/10 and
→ UPS-BAT/VRLA-WTR/24DC/13AH

Load Current	Buffertime																									
	Minutes ↓											Hours														
	10	12	15	20	25	30	35	40	45	50	55	1	2	3	4	5	6	7	8	9	10	12	14	16	18	20
1 A																										
2 A																										
3 A																										
5 A																										
→ 7 A																										
10 A																										
15 A																										
20 A																										

The data is based on an ambient temperature of +25°C at the beginning of life.

MINI DC UPS and battery modules

Select your combination of MINI DC UPS with integrated power supply and battery module here

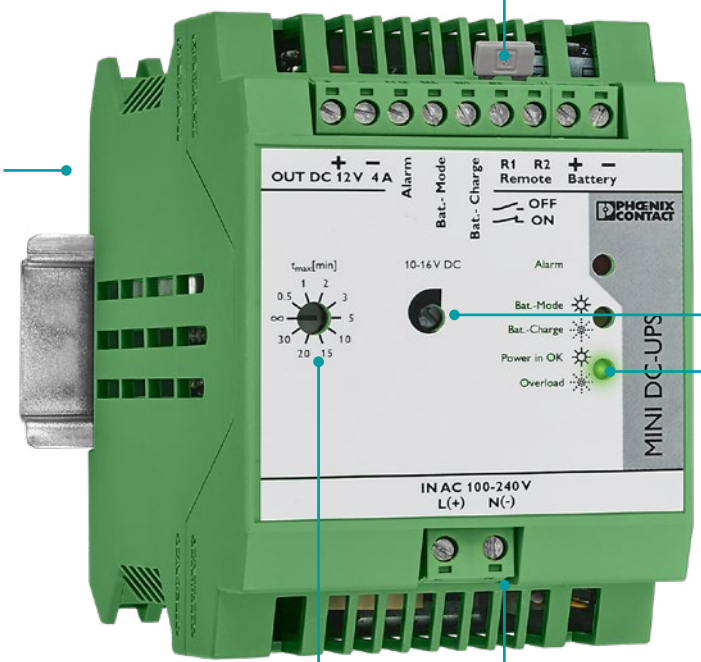
With its comprehensive signaling functions, the compact MINI UPS is always used in applications where space-saving solutions are needed. The battery module with lead AGM technology enables buffer times of up to 40 min. at nominal load for output voltages of 24 V DC or 12 V DC.

Quick and easy installation

- The preassembled bridge saves time and prevents connection errors

Particularly space-saving

- Compact design

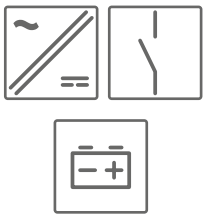


Adjustable output voltage

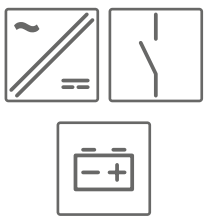
Signaling and status display via LEDs

Wide range input voltage

Selectable buffer time

	MINI UPS, 1~	Battery modules for 24 V DC system	
			 
Input	85 V AC ... 264 V AC 100 V DC ... 350 V DC	-	-
W x H x D in mm	67.5 x 99 x 107	67.5 x 99 x 107	52 x 141 x 108

	24 V / 2 A	0.8 Ah	1.2 Ah NEW
Type	MINI-DC-UPS/24DC/2	MINI-BAT/24DC/0.8AH	TRIO-BAT/PB/24DC/1.2AH
Item no.	2866640	2866666	1394729
Information	-	Lead AGM technology	Lead AGM technology

	MINI UPS, 1~	Battery modules for 12 V DC system	
			 
Input	85 V AC ... 264 V AC 100 V DC ... 350 V DC	-	-
W x H x D in mm	67.5 x 99 x 107	67.5 x 99 x 107	52 x 130 x 110

	12 V / 4 A	1.6 Ah	2.4 Ah
Type	MINI-DC-UPS/12DC/4	MINI-BAT/12DC/1.6AH	MINI-BAT/12DC/2.6AH
Item no.	2866598	2866572	2866569
Information	-	Lead AGM technology	Lead AGM technology

Buffer times for MINI DC UPS for 24 and 12 V DC systems

Example for a 24 V DC system:
1 A is to be buffered for 30 min.
→ ■
→ MINI-DC-UPS/24DC/2 and
→ TRIO-BAT/24DC/1.2AH

Load Current	Buffertime for 24 V DC system										
	Minutes						↓				Hour
	8	9	10	15	20	25	30	40	45	50	1
0.5 A											
→ 1 A											
1.5 A											
2 A											

Example for a 12 V DC system:
1 A is to be buffered for 30 min.
→ ■
→ MINI-DC-UPS/12DC/4 and
→ MINI-BAT/12DC/1.6AH

Load Current	Buffertime for 12 V DC system										
	Minutes				↓				Hour		
	8	9	10	20	30	40	45	50	1	2	3
0.5 A											
→ 1 A											
1.5 A											
2 A											

The data is based on an ambient temperature of +25°C at the beginning of life.

DC UPS

Select your QUINT DC UPS with integrated battery module here

QUINT DC UPS

The QUINT DC UPS is very space-saving and can be retrofitted in existing systems very easily. Simply connect a 24 V DC power supply unit upstream, and the UPS solution is complete. When the battery modules have exceeded their service life, they can be quickly and easily replaced.

- IQ Technology: using the integrated temperature sensor, the UPS calculates the optimized charging currents and thus increases the service life of the battery module
- Minimal wiring effort
- Maintenance-free battery module with lead AGM technology

	QUINT UPS[1)]	IQ Technology Designed by Phoenix Contact
		
Input	18 V DC ... 30 V DC	18 V DC ... 30 V DC
W x H x D in mm	88 x 138 x 125	120 x 169 x 125

	24 V / 5 A / 1.2 Ah	24 V / 10 A / 4 Ah
Type	QUINT-UPS/ 24DC/ 24DC/5/1.3AH	QUINT-UPS/ 24DC/ 24DC/10/3.4AH
Item no.	2320254	2320267
Information	Lead AGM technology	Lead AGM technology

[1)] These devices support SFB Technology.

00033566

Buffer times for QUINT UPS

Select your UPS with integrated battery module here.

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

→ ■

→ QUINT-UPS/24DC/24DC/10/3.4AH

Load Current	Buffertime																			
	Minutes											↓						Hours		
	1	2	3	4	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																				

The data is based on an ambient temperature of +25°C at the beginning of life.

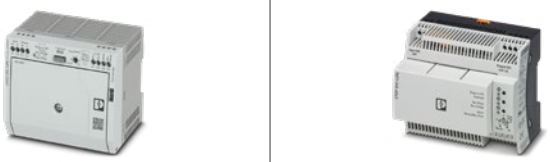
Select your DC UPS with integrated battery module here

UNO DC UPS

Harmonized with the UNO POWER power supply family, the UNO UPS with 60 W output power is available. The uninterruptible power supply operates flexibly at input voltages ranging from 22.5 to 29.5 V DC. The integrated lead AGM battery module ensures long buffer times of up to 45 min.

STEP DC UPS

The STEP UPS has been designed specifically for use in distribution boards. The uninterruptible power supply operates flexibly at input voltages ranging from 22.5 to 29.5 V DC. The integrated lithium-ion battery module ensures long buffer times of up to 90 min. at 24 V. The 12 V version operates at input voltages ranging from 10 to 16.5 V DC. The output current is buffered for up to 45 min.

	UNO UPS	STEP UPS	
			
Input	22.5 V DC ... 29.5 V DC	22.5 V DC ... 29.5 V DC	10 V DC ... 16.5 V DC
W x H x D in mm	110 x 90 x 84	108 x 90 x 71	108 x 90 x 71

	24 V / 2.5 A / 0.8 Ah	24 V / 3 A / 2.5 Ah	12 V / 4 A / 2.5 Ah
Type	UNO-UPS/24DC/24DC/60W	STEP-UPS/24DC/24DC/3/46WH	STEP-UPS/12DC/12DC/4/46WH
Item no.	2905907	1081430	1082548
Information	Lead AGM technology	Lithium-ion technology	Lithium-ion technology

00024108

Buffer times for UNO UPS and STEP UPS

Select your UPS with integrated battery module here.

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

→ ■

→ STEP-UPS/24DC/24DC/3A/46WH

Load Current	Buffertime																			
	Minutes								↓								Hours			
	1	2	3	5	6	7	8	9	10	15	20	25	30	40	45	50	1	1.5	2.5	5
0.5 A																				
1 A																				
1.5 A																				
2 A																				
→ 2.5 A																				
3 A																				
4 A																				

The data is based on an ambient temperature of +25°C at the beginning of life.

Supplying AC loads without mains

For online and offline operation

Our uninterruptible power supplies for industrial AC applications ensure a very high level of failsafe performance and system availability in the event of voltage failures or fluctuations. The AC UPS delivers a pure sine curve at the output and supplies AC loads with alternating current of up to 2.5 kVA without interruption. Choose the ideal AC UPS with corresponding battery module for your application.

AC UPS

QUINT HP UPS

For panel mounting, with IQ Technology and corresponding external battery module with power up to 2.5 kVA.

QUINT AC UPS

For the DIN rail, with IQ Technology and corresponding battery module for loads up to 1 kVA.

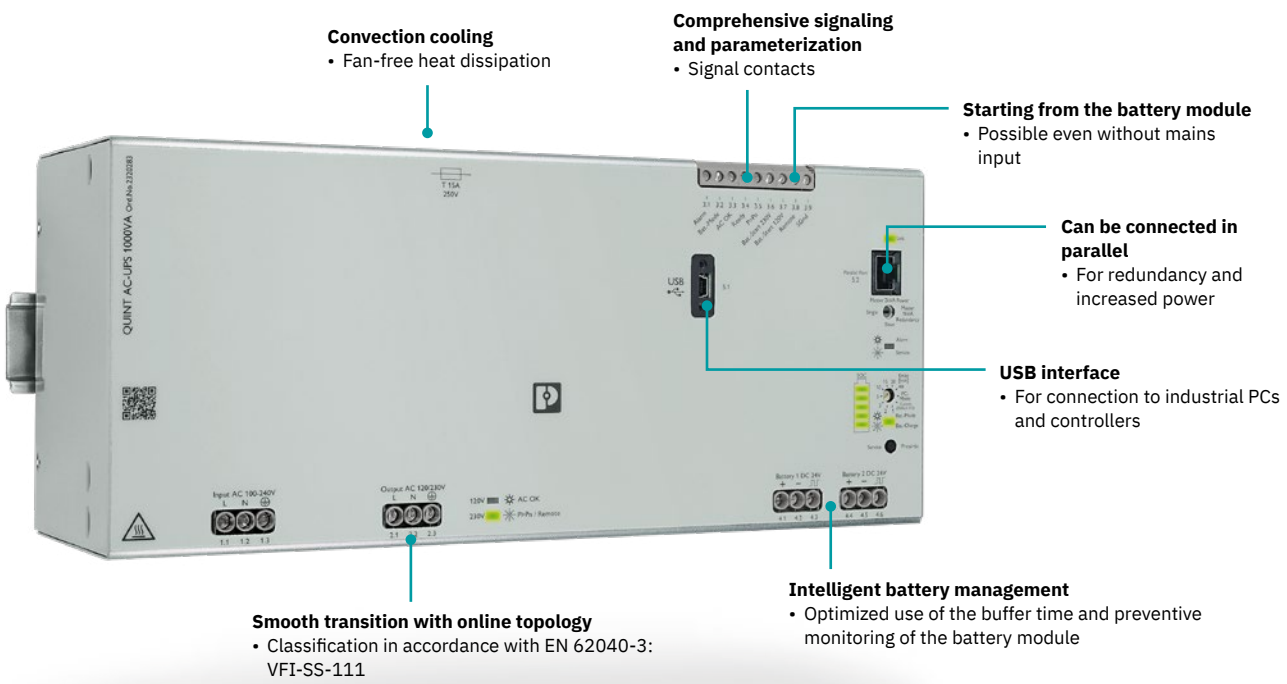
TRIO AC UPS

For the DIN rail, with integrated battery module, for more space in the control cabinet.

QUINT AC UPS

The clever IQ Technology in the QUINT UPS for AC applications monitors and optimizes the operation of your battery module. Use the complete energy content to continue to supply your processes and applications as long as possible. You will be warned at an early stage of possible failures, because your UPS detects the remaining life expectancy of the battery module. At the same time, the UPS detects the current performance of the energy storage unit. The different battery modules available enable optimized operation of your system.

The UPS can be integrated via the USB interface, which means it can be connected to higher-level controllers. The QUINT AC UPS delivers a pure sine curve at the output. The sine wave generated during battery operation is synchronized to the grid previously used for supply, allowing a seamless transition.



QUINT AC UPS and battery module

Select your combination of High Power QUINT AC UPS and battery module here

The new QUINT HP UPS for power up to 2.5 kVA supports direct panel mounting and ensures a very high level of system availability with the corresponding battery module.

In the event of power failure, the QUINT HP UPS ensures uninterrupted transition to buffer mode and back again. Mains input and output voltages are synchronous.

The online topology with a pure sine wave reliably supplies your AC loads with a perfect voltage at a power range from 1.5 to 2.5 kVA.

The QUINT HP UPS has a slot to accommodate an optionally available communication card.
Now for the first time this interface card gives you the option of communicating with the QUINT HP UPS via USB or RS-232/RS-485.

The state of charge of the UPS as well as the buffer time and the service life of the battery module can be viewed at any time via the software.

	QUINT HP UPS	IQ Technology Designed by Phoenix Contact	QUINT HP-BAT	Accessories
				
W x H x D in mm	150 x 240 x 143	150 x 240 x 143	156.5 x 354 x 143	

	120 AC / 1.5 kVA NEW	230 AC / 1.5 kVA NEW	7 Ah NEW					Interface card
No. of battery modules			1 x	2 x	3 x	4 x	5 x	
Type	QUINT-HP-UPS/ 120AC/1.5KVA/PT	QUINT-HP-UPS/ 230AC/1.5KVA/PT	QUINT-HP-BAT/PB/48DC/7.0AH/PT					QUINT-HP-COM/ USB-SER
Item no.	1136804	1136811	1133819					1252055

Buffer times for QUINT HP UPS/1.5 kVA with Pb battery module

Select the battery module for your QUINT HP UPS/1.5 kVA (120/230 V application) here.

Example:
1,000 W is to be buffered for 15 min.

→ ■
→ QUINT-HP-UPS/230AC/1.5KVA/PT
→ 2 x QUINT-HP-BAT-PB/48DC/7.0AH/PT

Load Current	Buffertime																							
	Minutes ↓														Hours									
	1	2	3	5	7	8	9	10	15	20	30	40	45	50	1	2	3	4	5	6	8	9	10	12
100 W																								
250 W																								
500 W																								
800 W																								
1000 W →																								
1150 W																								
1350 W																								

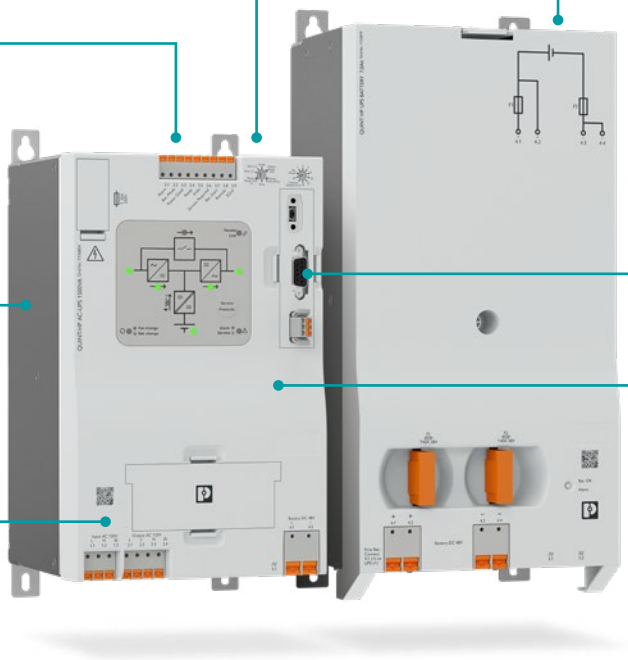
The data is based on an ambient temperature of +25°C at the beginning of life.

UPS module

Battery module (lead AGM technology)

Comprehensive signaling

- Signal contacts



Communication

- Optional communication card

High-level flexibility with various possible applications

- Redundancy operation, increased power of up to 5 kVA, or three-phase operation

Compact system

- Integrated fan with speed control and speed monitoring

Maxiwmum efficiency

- 95% in double-conversion mode

	QUINT HP UPS	IQ Technology Designed by Phoenix Contact	QUINT HP-BAT	Accessories
				
W x H x D in mm	188 x 240 x 143	188 x 240 x 143	156.5 x 354 x 143	

	120 AC / 2.5 kVA NEW	230 AC / 2.5 kVA NEW	7 Ah NEW					Interface card
No. of battery modules			2 x	4 x	6 x	8 x	10 x	
Type	QUINT-HP-UPS/ 120AC/2.5KVA/PT	QUINT-HP-UPS/ 230AC/2.5KVA/PT	QUINT-HP-BAT/PB/48DC/7.0AH/PT					QUINT-HP-COM/ USB-SER
Item no.	1136813	1136815	1133819					1252055

Buffer times for QUINT HP UPS/2.5 kVA with Pb battery module

Select the battery module for your QUINT HP UPS/2.5 kVA (120/230 V application) here.

Example:
1,750 W is to be buffered for 45 min.

→ ■
→ QUINT-HP-UPS/230AC/2.5KVA/PT
→ 8 x QUINT-HP-BAT/PB/48DC/7.0AH/PT

Load Current	Buffertime																				
	Minutes												↓		Hours						
	1	2	3	5	7	8	9	10	15	20	30	40	45	50	1	2	3	4	5	6	8	9	10
250 W																							
500 W																							
1000 W																							
1250 W																							
1500 W																							
→ 1750 W																							
2000 W																							
2250 W																							

The data is based on an ambient temperature of +25°C at the beginning of life.

QUINT AC UPS and battery module

Select your combination of QUINT AC UPS/500 VA and battery module here

With this new QUINT AC UPS, you can also reliably protect smaller loads up to 500 VA. Only one battery module is needed to safeguard your system.

	UPS-BAT/PB		
			
W x H x D in mm	85 x 191 x 110	135 x 202 x 110	202 x 202 x 110

	4 Ah	7 Ah	12 Ah
Type	UPS-BAT/PB/24DC/4AH	UPS-BAT/PB/24DC/7AH	UPS-BAT/PB/24DC/12AH
Item no.	1274117	1274118	1274119

	QUINT AC UPS, 1~ IQ Technology Designed by Phoenix Contact
	
W x H x D in mm	180 x 130 x 125

	400 W / 500 VA / USB
Type	QUINT4-UPS/1AC/1AC/500VA/USB
Interface	USB
Item no.	1067327
Recommended battery modules UPS/BAT/...	LI VRLA-WTR PB (4 Ah ... 110 Ah)

	UPS-BAT/PB		
			
W x H x D in mm	155 x 168 x 183	333 x 173 x 199	350 x 214 x 332

	20 Ah	40 Ah	110 Ah NEW
Type	UPS-BAT/PB/24DC/20AH	UPS-BAT/PB/24DC/40AH	UPS-BAT/PB/24DC/110AH
Item no.	1348516	1354641	1474660

Buffer times for QUINT AC UPS/500 VA with Pb battery module

Select the battery module for your QUINT AC UPS/500 VA here.

Example: 125 W is to be buffered for 50 min.

→ ■
→ QUINT4-UPS/1AC/1AC/500VA/USB
→ UPS-BAT/PB/24DC/12AH

Load Current	Buffertime																			
	Minutes ↓										Hours									
	1	2	3	5	10	20	30	40	45	50	1	2	3	5	8	10	15	24	40	60
15 W																				
35 W																				
55 W																				
90 W																				
→ 125 W																				
180 W																				
275 W																				
400 W																				

The data is based on an ambient temperature of +25°C at the beginning of life.

QUINT AC UPS and battery module

Select your combination of QUINT AC UPS/500 VA and battery module here

With this new QUINT AC UPS, you can also reliably protect smaller loads up to 500 VA. Only one battery module is needed to safeguard your system.

	UPS-BAT/LI			
				
W x H x D in mm	87 x 197 x 119	135 x 202 x 110	133 x 197 x 119	199 x 197 x 119

	64 Wh / 2.5 Ah NEW	128 Wh / 5 Ah	189 Wh / 7.4 Ah NEW	284 Wh / 11.1 Ah NEW
Type	UPS-BAT/LI/ 24DC/64WH	UPS-BAT/LI/ 24DC/128WH	UPS-BAT/LI/ 24DC/189WH	UPS-BAT/LI/ 24DC/284WH
Item no.	1460921	1396415	1460922	1460923

Buffer times for QUINT AC UPS/500 VA with lithium battery module

Select the battery module for your QUINT AC UPS/500 VA here.

Example:
125 W is to be buffered for 40 min.

→ ■
→ QUINT4-UPS/1AC/1AC/500VA/USB
→ UPS-BAT/LI/24DC/128WH

Load Current	Buffertime																
	Minutes										↓			Hours			
	1	2	3	5	7	8	9	10	20	30	40	45	50	1	2	3	5
15 W																	
35 W																	
55 W																	
90 W																	
→ 125 W																	
180 W																	
275 W																	
400 W																	

The data is based on an ambient temperature of +25°C at the beginning of life.

	QUINT AC UPS, 1~ IQ Technology Designed by Phoenix Contact
	
W x H x D in mm	180 x 130 x 125

	400 W / 500 VA / USB
Type	QUINT4-UPS/1AC/1AC/500VA/USB
Interface	USB
Item no.	1067327
Recommended battery modules UPS/BAT/...	LI VRLA-WTR PB (4 Ah ... 110 Ah)

	UPS-BAT/VRLA-WTR	
		
W x H x D in mm	172 x 177 x 178	358 x 174 x 169

	13 Ah	26 Ah
Type	UPS-BAT/VRLA-WTR/24DC/13AH	UPS-BAT/VRLA-WTR/24DC/26AH
Item no.	2320416	2320429

Buffer times for QUINT AC UPS/500 VA with VRLA-WTR battery module

Select the battery module for your QUINT AC UPS/500 VA here.

Example:
125 W is to be buffered for 1 h.

→ ■
→ QUINT4-UPS/1AC/1AC/500VA/USB
→ UPS-BAT/VRLA-WTR/24DC/26AH

Load Current	Buffertime ↓																
	Minutes										Hours						
	1	2	3	5	10	20	30	40	45	50	1	2	3	5	8	10	15
15 W																	
35 W																2x	
55 W															2x		
90 W														2x			
→ 125 W													2x	2x			
180 W													2x				
275 W												2x					
400 W											2x						

2x: In this case, two battery modules of the same capacity are required.
The data is based on an ambient temperature of +25°C at the beginning of life.

QUINT AC UPS and battery module

Select your combination of QUINT AC UPS/1 kVA and battery module here

With this QUINT AC UPS, you can reliably protect large loads up to 1 kVA. Only one battery module is needed to safeguard your system.

	UPS-BAT/PB		
			
W x H x D in mm	85 x 191 x 110	135 x 202 x 110	202 x 202 x 110

	4 Ah	7 Ah	12 Ah
Type	UPS-BAT/PB/24DC/4AH	UPS-BAT/PB/24DC/7AH	UPS-BAT/PB/24DC/12AH
Item no.	1274117	1274118	1274119

	QUINT AC UPS, 1~ IQ Technology Designed by Phoenix Contact
	
W x H x D in mm	290 x 130 x 125

	100 V / 1000 VA / 900 W / 1000 VA / USB
Type	QUINT4-UPS/1AC/1AC/1KVA
Interface	USB
Item no.	2320283
Recommended battery modules UPS/BAT/...	LI VRLA-WTR PB (4 Ah ... 110 Ah)

	UPS-BAT/PB		
			
W x H x D in mm	155 x 168 x 183	333 x 173 x 199	350 x 214 x 332

	20 Ah	40 Ah	110 Ah NEW
Type	UPS-BAT/PB/24DC/20AH	UPS-BAT/PB/24DC/40AH	UPS-BAT/PB/24DC/110AH
Item no.	1348516	1354641	1474660

Buffer times for QUINT AC UPS/1 kVA with Pb battery module

Select the battery module for your QUINT AC UPS/1 kVA here. You always need two Pb battery modules of the same capacity.

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

→ ■
→ QUINT4-UPS/1AC/1AC/1KVA
→ 2 x UPS-BAT/PB/24DC/20AH

Load Current	Buffertime																								
	Minutes ↓													Hours											
	1	2	3	4	5	8	10	15	20	25	30	40	50	1	1.5	2	3	4	6	9	10	15	20	24	40
100 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x
200 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x		
300 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x				
→ 400 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x				
500 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x						
600 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x						
700 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x							
800 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x							
900 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x							

2x: Here, two battery modules of the same capacity are always required.
The data is based on an ambient temperature of +25°C at the beginning of life.

QUINT AC UPS and battery module

Select your combination of QUINT AC UPS/1 kVA and battery module here

With this QUINT AC UPS, you can reliably protect large loads up to 1 kVA. Only one battery module is needed to safeguard your system.

	UPS-BAT/LI			
				
W x H x D in mm	87 x 197 x 119	135 x 202 x 110	133 x 197 x 119	199 x 197 x 119

	64 Wh / 2.5 Ah NEW	128 Wh / 5 Ah	189 Wh / 7.4 Ah NEW	284 Wh / 11.1 Ah NEW
Type	UPS-BAT/LI/ 24DC/64WH	UPS-BAT/LI/ 24DC/128WH	UPS-BAT/LI/ 24DC/189WH	UPS-BAT/LI/ 24DC/284WH
Item no.	1460921	1396415	1460922	1460923

Buffer times for QUINT AC UPS/1 kVA with lithium battery module

Select the battery module for your QUINT AC UPS/1 kVA here. You always need two lithium battery modules of the same capacity.

Example:
500 W is to be buffered for 20 min.

→ ■
→ QUINT4-UPS/1AC/1AC/1KVA
→ 2 x UPS-BAT/LI/24DC/128WH

Load Current	Buffertime																
	Minutes ↓													Hours			
	1	2	3	4	5	8	10	15	20	25	30	40	50	1	1.5	2	3
100 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x
200 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x		
300 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x			
400 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x				
→ 500 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x					
600 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x						
700 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x						
800 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x							
900 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x							

2x: Here, two battery modules of the same capacity are always required.
The data is based on an ambient temperature of +25°C at the beginning of life.

	QUINT AC UPS, 1~ IQ Technology Designed by Phoenix Contact
	
W x H x D in mm	290 x 130 x 125

	100 V / 1000 VA900 W / 1000 VA / USB
Type	QUINT4-UPS/1AC/1AC/1KVA
Interface	USB
Item no.	2320283
Recommended battery modules UPS/BAT/...	LI VRLA-WTR PB (4 Ah ... 110 Ah)

	UPS-BAT/VRLA-WTR	
		
W x H x D in mm	172 x 177 x 178	358 x 174 x 169

	13 Ah	26 Ah
Type	UPS-BAT/VRLA-WTR/24DC/13AH	UPS-BAT/VRLA-WTR/24DC/26AH
Item no.	2320416	2320429

Buffer times for QUINT AC UPS/1 kVA with VRLA-WTR battery module

Select the battery module for your QUINT AC UPS/1 kVA here. You always need two VRLA-WTR battery modules of the same capacity.

Example:
600 W is to be buffered for 1 h.

→ ■
→ QUINT4-UPS/1AC/1AC/1KVA
→ 2 x UPS-BAT/VRLA-WTR/24DC/26AH

Load Current	Buffertime																			
	Minutes ↓													Hours						
	1	2	3	4	5	8	10	15	20	25	30	40	50	1	1.5	2	3	4	6	9
100 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x
200 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x		
300 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x			
400 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x				
500 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x					
→ 600 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x					
700 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x						
800 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x						
900 W	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x							

2x: Here, two battery modules of the same capacity are always required.
The data is based on an ambient temperature of +25°C at the beginning of life.

TRIO AC UPS

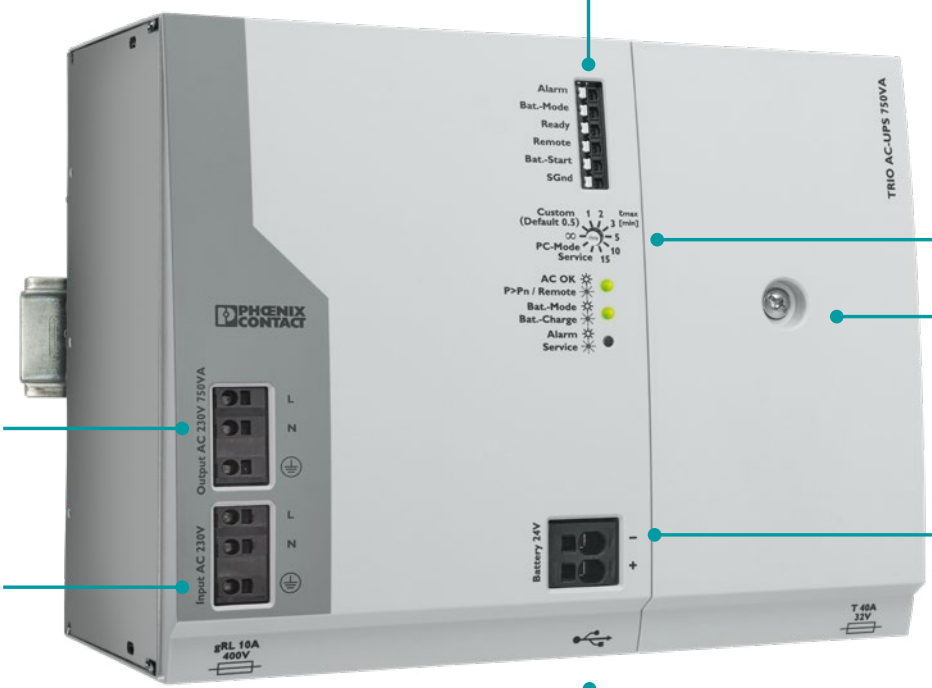
Select your TRIO AC UPS with integrated battery module here

The TRIO AC UPS for the DIN rail with integrated battery module and Push-in Technology saves space and reliably supplies your AC loads.

The housing combines the UPS and battery module and makes retrofitting existing systems particularly easy.

The TRIO UPS for AC applications delivers a pure sine curve at the output. The sine wave generated during battery operation is synchronized to the grid previously used for supply, allowing a seamless transition. The module can also be started without mains input via the battery module.

Connected industrial PCs can be shut down via the integrated USB interface.



Signal terminal blocks

- For signaling and control

Rotary selector switch

- For setting the buffer time

Integrated energy storage

Pure sine curve

- In battery operation, the sine wave generated is synchronized to the previously applied grid

Input and output terminal

- Push-in Technology

Battery extension

- For doubling the capacity

USB interface

- For configuration and for shutting down an IPC

	TRIO UPS, 1~	
		
Input	96 V AC ... 138 V AC	184 V AC ... 264 V AC
W x H x D in mm	210 x 170 x 136	210 x 170 x 136

	120 V / 750 VA	230 V / 750 VA
Type	TRIO-UPS-2G/1AC/1AC/120V/750VA	TRIO-UPS-2G/1AC/1AC/230V/750VA
Interface	USB	USB
Item no.	2905908	2905909
Information	Lead AGM technology	Lead AGM technology

Buffer times for TRIO AC UPS:

2x: In these cases, you need another UPS-BAT/PB/24DC/4AH type battery module (1274117) with the same capacity (4 Ah).

Load Current	Buffertime													
	Minutes												Hours	
	1	1.5	2	4	6	8	10	15	20	30	40	50	1	1.5
50 W												2x	2x	2x
100 W										2x	2x	2x		
150 W								2x	2x	2x				
200 W							2x	2x	2x					
250 W						2x	2x	2x						
300 W					2x	2x	2x							
400 W				2x	2x	2x								
500 W			2x	2x	2x									
600 W		2x	2x	2x										

2x: In this case, two battery modules of the same capacity are required.
The data is based on an ambient temperature of +25°C at the beginning of life.

Battery modules

For the optimal supply of your system

With the battery modules for our modular system of uninterruptible power supplies, you will always have the right solution for your system.

Choose from our various technologies and capacities. Whatever your requirements, we have the right battery module for you.

Your advantages

- Battery modules for a long service life
- Maintenance-free battery modules for long buffer times
- Immediate availability, as all battery modules are sent to our warehouse optimally charged
- Compact solution – combination of TRIO battery module and TRIO UPS
- Intelligent solution – combination of communicative UPS battery module with QUINT UPS

Technologies and advantages

Long buffer times

Lead AGM technology is a good choice for normal conditions in the control cabinet.

- UPS-BAT/PB and TRIO-BAT/PB

Powerful and lightweight

Lithium iron phosphate technology with high energy density has a very long cycle life.

- UPS-BAT/LI

Extreme temperature ranges

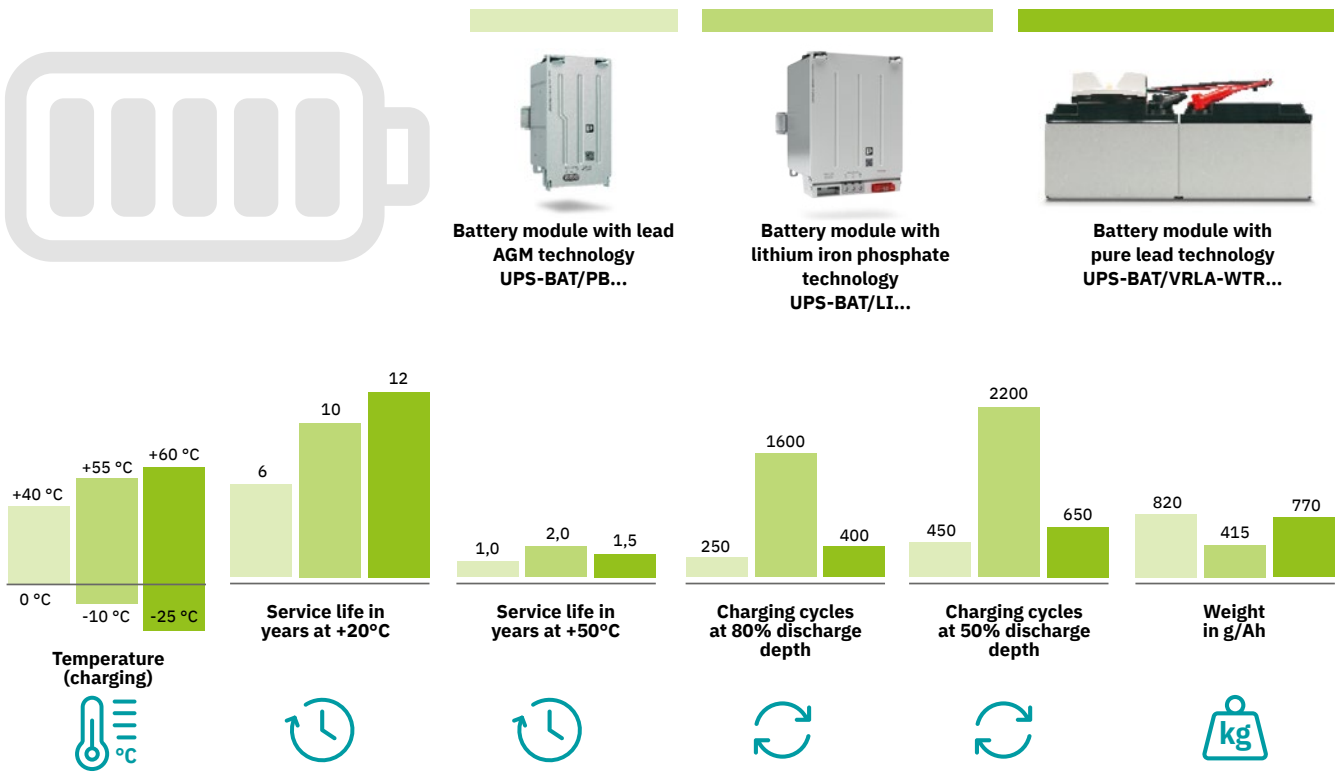
Pure lead technology is ideal for extreme temperatures.

- UPS-BAT/VRLA-WTR

Technical properties of the battery modules

We offer three battery technologies for your application:

- Lithium battery modules with lithium iron phosphate technology
- VRLA-WTR battery modules with pure lead AGM technology
- Lead battery modules with lead AGM technology
- The infographic shows the properties defined by the battery technology. You can optimally select your individually required buffer times from the large number of different capacities.



The data is based on a 12 Ah equivalent.

DC UPS with integrated capacitor

Intelligent protection in the event of mains failures

The QUINT CAP modules with integrated interface can be integrated easily into industrial networks. The DC UPS with integrated capacitor intercepts cyclical failures lasting up to several minutes. It combines an electronic switchover unit and energy storage in the same housing.

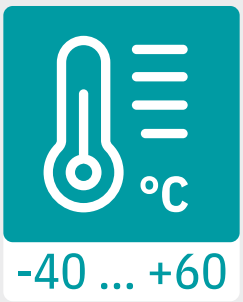
Your advantages

- Easy integration into industrial networks with freely selectable interface:
  USB, Modbus/RTU, PROFINET, EtherNet/IP™, Modbus/TCP, EtherCAT®
- Long service life with maintenance-free double-layer capacitors
- Static boost for compensating high Inrush current peaks
- Comprehensive signaling: preventive function monitoring reports critical operating states
- Extension of the buffer time with parallel connection of up to four devices

DC UPS with integrated capacitor

Maintenance-free

- High reliability
- Long service life
- High cycle rates >500,000



Flexible options for use

- Modular design
- Temperature range: -40°C ... +60°C
- Easy to integrate in existing networks

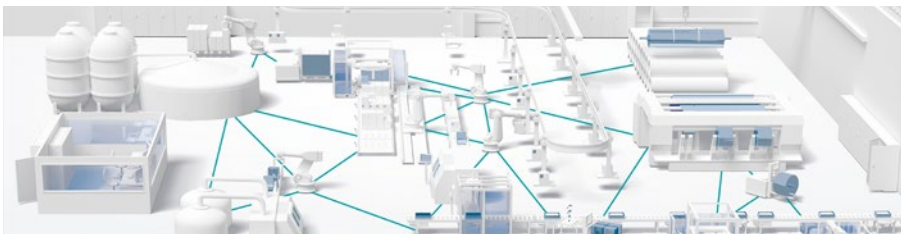
Effective protection

- Soft start function for optimum starting
- Protection against overload and overheating
- Protection against overvoltages and undervoltages

QUINT CAP – DC UPS with integrated capacitor

The maintenance-free QUINT CAP modules intercept cyclical failures lasting up to several minutes. With their integrated interface, they can be integrated easily into industrial networks. They combine an electronic switchover unit and energy storage in the same housing, thus saving space. Maintenance-free double-layer capacitors are used as energy storage.

Depending on the application, modules are available with 1 kJ, 4 kJ, 8 kJ, and even 16 kJ, with or without communication interface. QUINT CAP modules are ideal for use in machine



building, intralogistics, infrastructure, and the wind industry.

The POWER MANAGEMENT SUITE software, for quick and easy configuration and monitoring of your UPS system, is available in the free download area.

For more information on this, see page 66.

STEP CAP with double-layer capacitors

The compact STEP DC UPS with integrated capacitor can bridge power failures lasting up to one minute. The space-saving module combines an electronic switchover unit and energy storage in the same housing.

The capacitor module stores the energy required to bridge mains failures in maintenance-free double-layer capacitors. This ensures high system availability.

DC UPS with integrated capacitor

QUINT DC UPS with integrated capacitor

	QUINT CAP[1)]			
				
Input	22.5 V DC ... 30 V DC	22.5 V DC ... 30 V DC	22.5 V DC ... 30 V DC	
W x H x D in mm	85 x 102.5 x 90	94 x 130 x 125	118 x 130 x 125	
	24 V / 3.8 A	**24 V / 5 A**	**24 V / 10 A**	
Type	QUINT4-CAP/24DC/3.8/1KJ/PT	QUINT4-CAP/24DC/5/4KJ	QUINT4-CAP/24DC/10/8KJ	
Interface	-	USB	USB	
Item no.	2320526	2320539	2320571	
Information	Energy storage based on maintenance-free double-layer capacitors			

	QUINT CAP[1)]			
				
Input	22.5 V DC ... 30 V DC	22.5 V DC ... 30 V DC	22.5 V DC ... 30 V DC	22.5 V DC ... 30 V DC
W x H x D in mm	244 x 130 x 125	244 x 130 x 125	244 x 130 x 125	244 x 130 x 125
	24 V / 20 A	**24 V / 20 A**	**24 V / 20 A**	**24 V / 20 A**
Type	QUINT4-CAP/ 24DC/20/16KJ/USB	QUINT4-CAP/ 24DC/20/16KJ/PN	QUINT4-CAP/ 24DC/20/16KJ/EIP	QUINT4-CAP/ 24DC/20/16KJ/EC
Interface	USB	PROFINET	EtherNet/IP™ Modbus/TCP	EtherCAT®
Item no.	1065635	1076860	1076861	1076858
Information	Energy storage based on maintenance-free double-layer capacitors			

[1)] The devices support SFB Technology in mains operation in conjunction with QUINT POWER power supplies of the same performance class.

Buffer times for QUINT CAP

Example:
5 A is to be buffered for 1 min.

→ ■
→ QUINT4-CAP/24DC/10/8KJ

Load Current	Buffertime: Seconds 9	10	15	20	30	40	50	Minutes 1	2	3	5	10	20	30	40	50	60
0.05 A																	
0.50 A																	
1.00 A																	
2.00 A																	
2.50 A																	
3.80 A																	
→ 5.00 A																	
6.25 A																	
7.50 A																	
10.0 A																	
12.5 A																	
15.0 A																	
20.0 A																	
25.0 A																	

The data is based on an ambient temperature of +25°C.

STEP CAP integrated capacitor

Position A
- Maximum buffer time

Space-saving
- Due to the compact STEP design

Temperature range
- -25°C ... +60°C

Position B
- Maximum service life

Maintenance-free
- Due to double-layer capacitors

Long service life
- High system availability due to long capacitor service life

	STEP CAP
	
Input	23.7 V DC ... 26.5 V DC
W x H x D in mm	80 x 125 x 60

	24 V / 2 A NEW
Type	STEP-CAP/24VDC/2/0.4KJ
Item no.	1519633
Information	Energy storage based on maintenance-free double-layer capacitors

Buffer times for STEP CAP

Position A for maximum buffer time
Example:
0.3 A is to be buffered for 1 min.

→ ■

→ Maximum buffer times

Position B for maximum service life
Example:
1.5 A is to be buffered for 8 s.

→ □

→ Maximum service life

Load Current	Buffertime: Seconds 6	8	10	12	15	20	25	30	35	40	50	Minutes 1	2
0.10 A													■
→ 0.30 A										◢	■	■	
0.50 A								■	■				
0.80 A						■	■						
1.00 A					■	■							
1.30 A				■	■								
→ 1.50 A		□		■									
1.80 A			■										
2.00 A		■	■										

The data is based on an ambient temperature of +25°C.

QUINT buffer module

Select your QUINT BUFFER with electrolytic capacitors here

The compact QUINT buffer module bridges power failures lasting seconds. An electronic switchover unit and energy storage are combined in the same housing. The capacitor module stores the energy required to bridge mains failures in maintenance-free electrolytic capacitors. The long service life of the capacitors and the integrated safety functions ensure high system availability.

The integrated “soft start” limits the inrush current and thus prevents the power supply unit from being overloaded.

Your advantages

- Maximum energy efficiency
- High system availability due to long capacitor service life
- Wide temperature range of -40°C to +70°C
- Static boost for compensating high Inrush current peaks
- Reliability and safety due to the integrated safety functions

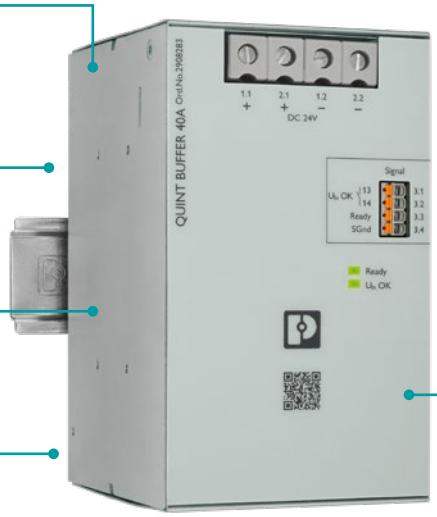
Buffers

Reliability and safety
- Due to the integrated safety function

Wide temperature range
- -40°C ... +70°C

Static boost
- For compensating high inrush current peaks

Maximum energy efficiency
- Optimized energy use



High system availability
- Due to long capacitor service life

Comprehensive signaling on the device
- LEDs and signal terminal blocks

Integrated “soft start”
- For limiting the inrush current and preventing power supply unit overload

	QUINT BUFFER[1)]	
		
Input	22.5 V DC ... 30 V DC	22.5 V DC ... 30 V DC
W x H x D in mm	56 x 130 x 125	72 x 130 x 125

	24 V / 20 A	24 V / 40 A
Type	QUINT4-BUFFER/24DC/20	QUINT4-BUFFER/24DC/40
Item no.	2907913	2908283
Information	Energy storage based on maintenance-free electrolytic capacitors	

[1)] The devices support SFB Technology in mains operation in conjunction with 4th generation QUINT POWER power supplies.

Buffer times for QUINT BUFFER

Example:
1 A is to be buffered for 1 s.

→ ■
→ QUINT4-BUFFER/24DC/20

Load Current	Buffertime Seconds 0.1	0.3	0.4	0.5	1	1.5	6	7	9	12	14	16	18	19	25	30
0.1 A																
0.25 A																
0.50 A																
0.75 A																
→ 1 A																
5 A																
10 A																
20 A																
30 A																
40 A																

The data is based on an ambient temperature of +25°C.

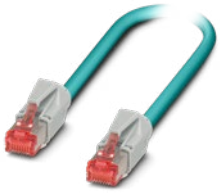
Accessories – product overview

	Mounting adapters			
				
	Flat mounting adapter	**Angled mounting adapter**	**Mounting adapter for battery modules**	
	UWA 182/52	UWA 130	QUINT-ADAPTER/4	
Item no.	2938235	2901664	2866857	
Description	For: QUINT-PS QUINT4-UPS QUINT4-UPS/ 1AC/1AC/500VA/USB QUINT4-CHARGER QUINT4-CAP QUINT4-BUFFER QUINT4-INV TRIO-PS (from 10 A) TRIO-UPS-2G/1AC/24DC/...	For: QUINT-PS (1 kW) QUINT4-PS QUINT4-UPS QUINT4-CHARGER QUINT4-CAP QUINT4-BUFFER QUINT4-INV TRIO-UPS-2G	For: UPS-BAT/PB/24DC/7 and 12 A TRIO-BAT/PB/24DC/7 and 12 A	

	Programming adapters	
		NEW 
	Programming adapter for NFC	**Programming adapter for IO-Link**
	TWN4 MIFARE NFC USB ADAPTER	USB IO-LINK ADAPTER
Item no.	2909681	1533311
Description	• Programming adapter for near field communication (NFC) • With USB interface • For wireless configuration of NFC-capable QUINT POWER power supplies	• Programming adapter for IO-Link • With USB interface • For configurating IO-Link-capable QUINT POWER and TRIO POWER power supplies

	Accessories for QUINT HP UPS	
	NEW 	NEW 
	Interface card	**Fan**
Type	QUINT-HP-COM/USB-SER	QUINT-HP-FAN
Item no.	1252055	1252068

Accessories – product overview

	Accessories for 4th generation QUINT UPS and 2nd generation TRIO UPS				
					
	Software	**USB data cable**	**Ethernet data cable**	**PROFINET data cable**	**IoT gateway**
Type	POWER MANAGEMENT SUITE	MINI-SCREW-USB-DATACABLE	Network cable – NBC-R4AC/1,0-93E/R4AC	Patch cable – NBC-R4AC/1,0-93B/R4AC	IoT gateway – CLOUD IOT GATEWAY
Item no.	1252232	2908217	1408933	1408968	1031235
Type			Network cable – NBC-R4AC/2,0-93E/R4AC	Patch cable – NBC-R4AC/2,0-93B/R4AC	
Item no.			1408934	1408969	
Type			Network cable – NBC-R4AC/5,0-93E/R4AC	Patch cable – NBC-R4AC/5,0-93B/R4AC	
Item no.			1408935	1408970	
Type			Network cable – NBC-R4RC/10,0-94B/R4RC	Patch cable – NBC-R4AC/10,0-93B/R4AC	
Item no.			1408963	1408971	

	Accessories for 3rd generation QUINT UPS			
				
	Configuration software	**USB data cable**	**Memory block**	**Interface converter**
Type	UPS-CONF	IFS-USB-DATACABLE	IFS-CONFSTICK	FL COMSERVER UNI 232/422/485
Item no.	2320403	2320500	2986122	2313452
Type		IFS-BT-PROG-ADAPTER	IFS-CONFSTICK-L	
Item no.		2905872	2901103	
Type		IFS-RS232-DATACABLE		
Item no.		2320490		
Type		IFS-OPEN-END-DATACABLE		
Item no.		2320450		
Type		IFS-MINI-DIN-DATACABLE		
Item no.		2320487		

Accessories – product overview

	Mounting for battery modules		
			
	BATTERY MOUNTING KIT	**BATTERY MOUNTING CASE**	**BATTERY MOUNTING CASE**
Item no.	2320788	1134645	2320458
Information	For: UPS-BAT/PB/24DC/20AH UPS-BAT/PB/24DC/40AH UPS-BAT/VRLA-WTR/24DC/13AH UPS-BAT/VRLA-WTR/24DC/26AH	For: UPS-BAT/PB/24DC/20AH UPS-BAT/VRLA-WTR/24DC/13AH	For: UPS-BAT/VRLA-WTR/24DC/26AH UPS-BAT/PB/24DC/20AH UPS-BAT/PB/24DC/40AH UPS-BAT/VRLA-WTR/24DC/13AH

	Replacement batteries for UPS-BAT/PB	Replacement batteries for UPS-BAT/VRLA/WTR	Replacement batteries for UPS-BAT/LI
			
	UPS-BAT-KIT 2X12/1.2AH	**UPS-BAT-KIT-WTR 2X12V/13AH**	**UPS-BAT-KIT-LI/24DC/64WH**
Item no.	1283114	2908368	1446073
	UPS-BAT-KIT 2X12/4AH	**UPS-BAT-KIT-WTR 2X12V/26AH**	
Item no.	1283116	2908369	
	UPS-BAT-KIT 2X12/7AH		
Item no.	1283119		
	UPS-BAT-KIT 2X12/12AH		
Item no.	1283121		
	UPS-BAT-KIT 2X12/20AH		
Item no.	1185595		
	UPS-BAT-KIT 2x12/40AH		
	1383182		

Accessories – product overview

	Fuses for AC UPS		
			
	FUSE 40A / 32V ATOF	**FUSE 10A / 400V GRL**	**FUSE 25A / 58V TAC ATO**
Item no.	2908357	2908358	1021340
Information	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 QUINT4-UPS/1AC/1AC/500VA/USB	For: QUINT4-UPS/1AC/1AC/1KVA

	Fuses for battery modules		
			
	FUSE 15A / 32V FK1	**FUSE 25A / 32V ATOF**	**FUSE 5A / 32V FK-1**
Item no.	2908360	2908366	2908367
Information	For: UPS-BAT/PB/24DC/1.2AH	For: UPS-BAT/PB/24DC/4AH UPS-BAT/PB/24DC/7AH UPS-BAT/PB/24DC/12AH UPS-BAT/PB/24DC/20AH UPS-BAT/PB/24DC/40AH UPS-BAT/PB/24DC/110AH UPS-BAT/VRLA-WTR/24DC/13AH UPS-BAT/VRLA-WTR/24DC/26AH UPS-BAT/LI/24DC/128WH MINI-BAT/12DC/2.6AH TRIO-BAT/PB/24DC/4AH TRIO-BAT/PB/24DC/7AH TRIO-BAT/PB/24DC/12AH	For: UNO-UPS/24DC/24DC/60W MINI-BAT/24DC/0.8AH

	Fuses for battery modules		
			
	FUSE 15A / 32V FKS ATO	**FUSE 10A / 32V FK1**	
Item no.	2908361	2908364	
Information	For: MINI-BAT/24DC/1.3AH QUINT-UPS/24DC/24DC/5/1.3AH QUINT-UPS/24DC/24DC/10/3.4AH TRIO-BAT/PB/24DC/1.2AH	For: MINI-BAT/12DC/1.6AH	

Approvals for power supplies

		UL						CSA		Ship						Ex									
		CE/UKCA	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	CSA 22.2 No 61010-1 CSA 22.2 No 61010-2-201	DNV	ABS – American Bureau of Shipping	BV – Bureau Veritas	LR – Lloyd's Register	NK – Nippon Kaiji Kyokai	RINA	ATEX/UK-Ex/IECEx	CCC Ex	DeviceNet™	SEMI F47-0706 Compliance	CB Scheme	Med. standard IEC 60601, 2 x MOOP	EN 50121-4, -5, -3-2	Startup at -40°C	Installation altitude
QUINT POWER power supplies >100 W for the DIN rail																									
QUINT4-PS/1AC/24DC/5	2904600	•			•	•	•		•		•	•	•	•	•				•	•		•	•	c
QUINT4-PS/1AC/24DC/10	2904601	•			•	•	•		•		•	•	•	•	•				•	•		•	•	c
QUINT4-PS/1AC/24DC/20	2904602	•			•	•	•		•		•	•	•	•	•				•	•		•	•	c
QUINT4-PS/1AC/24DC/40	2904603	•			•	•	•		•		•	•	•	•	•				•	•		•	•	c
QUINT4-PS/1AC/48DC/5	2904610	•			•	•	•		•		•	•	•	•	•				•	•		•	•	c
QUINT4-PS/1AC/48DC/10	2904611	•			•	•	•		•		•	•	•	•	•				•	•		•	•	c
QUINT4-PS/1AC/48DC/20	2904612	•		•		•	•		•		•	1)	•	•						•		•	•	c
QUINT4-PS/1AC/12DC/15	2904608	•			•	•	•		•		•	•	•	•	•				•	•		•	•	c
QUINT4-PS/1AC/110DC/4	2904613	•	•			•	•			•	•	1)	•	•	•				•	•		•	•	b
QUINT4-PS/3AC/24DC/5	2904620	•			•	•	•		•		•	•	•	•	•				•	•		•	•	c
QUINT4-PS/3AC/24DC/10	2904621	•			•	•	•		•		•	•	•	•	•				•	•		•	•	c
QUINT4-PS/3AC/24DC/20	2904622	•			•	•	•		•		•	•	•	•	•				•	•		•	•	c
QUINT4-PS/3AC/24DC/40	2904623	•			•	•	•		•		•	•	•	•	•				•	•		•	•	c
QUINT4-PS/3AC/48DC/20	2904627	•		•		•	•		•		•	1)	•	•						•		•	•	c
QUINT4-PS/3AC/24DC/20/IOL	1151048	•			•	•	•		•		•	1)	•	•	•				•	•		•	•	c
QUINT4-PS/3AC/24DC/40/IOL	1151047	•			•	•	•		•		•	1)	•	•	•				•	•		•	•	c
QUINT4-PS/1AC/24DC/10/+	2904616	•			•	•	•		•		•	•	•	•	•		•	•	•	•		•	•	c
QUINT4-PS/1AC/24DC/20/+	2904617	•			•	•	•		•		•	•	•	•	•		•	•	•	•		•	•	c
QUINT4-PS/1AC/24DC/40/+	2904618	•			•	•	•		•		•	1)	•	1)	1)		•	•	•	•		•	•	c
QUINT4-PS/1AC/24DC/10/CO	2904625	•			•	•	•		•		•	•	•	•	•				•	•		•	•	c
QUINT4-PS/1AC/48DC/10/CO	2904626	•			•	•	•		•		•	•	•	•	•				•	•		•	•	c
QUINT4-PS/3AC/24DC/20/CO	1343940	•			•	•	•		•		•								•	•		•	•	c
QUINT4-PS/3AC/48DC/40/CO	1783052	•			•	•	•		•		•								•	•		•	•	c
QUINT4-PS/1AC/24DC/10/+/F	1672244	•			•	•	•		•		•								•	•		•	•	c
QUINT4-PS/1AC/24DC/20/+/F	1672245	•			•	•	•		•		•								•	•		•	•	c

			UL						CSA		Ship						Ex								
		CE/UKCA	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	CSA 22.2 No 61010-1 CSA 22.2 No 61010-2-201	DNV	ABS – American Bureau of Shipping	BV – Bureau Veritas	LR – Lloyd's Register	NK – Nippon Kaiji Kyokai	RINA	ATEX/UK-Ex/IECEx	CCC Ex	DeviceNet™	SEMI F47-0706 Compliance	CB Scheme	Med. standard IEC 60601, 2 x MOOP	EN 50121-4, -5, -3-2	Startup at -40°C	Installation altitude
QUINT POWER power supplies <100 W for the DIN rail																									
QUINT4-PS/1AC/24DC/1.3/PT	2909575	•	•				•	•			•									•	•		•	•	c
QUINT4-PS/1AC/24DC/1.3/SC	2904597	•	•				•	•			•									•	•		•	•	c
QUINT4-PS/1AC/24DC/2.5/PT	2909576	•	•				•	•			•									•	•		•	•	c
QUINT4-PS/1AC/24DC/2.5/SC	2904598	•	•				•	•			•									•	•		•	•	c
QUINT4-PS/1AC/24DC/3.8/PT	2909577	•	•				•	•			•									•	•		•	•	c
QUINT4-PS/1AC/24DC/3.8/SC	2904599	•	•				•	•			•									•	•		•	•	c
QUINT4-PS/1AC/12DC/2.5/PT	2904605	•	•				•	•			•									•	•		•		c
QUINT4-PS/1AC/12DC/7.5/PT	2904607	•	•				•				•									•	•		•	•	c
QUINT4-PS/1AC/5DC/5/PT	2904595	•	•				•	•			•									•	•		•	•	c
QUINT4-PS/1AC/2x15DC/2/PT	2904596	•	•				•	•		•	•									•	•		•	•	c
QUINT4-SYS-PS/1AC/24DC/2.5/SC	2904614	•	•				•	•			•						•	•		•	•		•	•	c

[1] Approval in preparation
a) max. 3,000 m b) max. 4,000 m c) max. 5,000 m d) max. 6,000 m e) max. 2,000 m
All products receive further approvals on a continual basis.
For up-to-date information, go to the "Downloads" area for the respective items on the Phoenix Contact website.

Approvals for power supplies

		UL						CSA		Ship						Ex									
		CE/UKCA	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 61010-2-201	DNV	ABS – American Bureau of Shipping	BV – Bureau Veritas	LR – Lloyd's Register	NK – Nippon Kaiji Kyokai	RINA	ATEX/UK-Ex/IECEx	CCC Ex	DeviceNet™	SEMI F47-0706 Compliance	CB Scheme	Med. standard IEC 60601, 2 x MOOP	Railway standard EN 50155	Startup at -40°C	Installation altitude
TRIO POWER power supplies for the DIN rail																									
TRIO3-PS-2G/1AC/24DC/3/C2LPS	1362785	•	•				•	•												•	•			•	c
TRIO3-PS/1AC/24DC/5	1159037	•	•				•				•									•	•			•	c
TRIO-PS-2G/1AC/24DC/5/B+D	2903144	•			•	•					•									•	•				c
TRIO3-PS/1AC/24DC/10	1159038	•	•				•				•									•	•			•	c
TRIO-PS-2G/1AC/24DC/10/B+D	2903145	•			•	•					•									•	•				c
TRIO3-PS/1AC/24DC/20	1159039	•	•				•				•									•	•			•	c
TRIO-PS-2G/1AC/48DC/5	2903159	•			•	•	•														•			•	c
TRIO3-PS/1AC/48DC/10	1362786	•	•				•													•	•			•	c
TRIO3-PS/1AC/12DC/5/C2LPS	1362789	•	•				•	•												•	•			•	c
TRIO-PS-2G/1AC/12DC/10	2903158	•			•	•	•														•			•	c
TRIO3-PS/3AC/24DC/5	1362783	•	•				•				•									•	•			•	c
TRIO3-PS/3AC/24DC/10	1159042	•	•				•													•	•			•	c
TRIO3-PS/3AC/24DC/20	1159044	•	•				•													•	•			•	c
TRIO3-PS/3AC/24DC/40	1159045	•	•				•													•	•			•	c
TRIO3-PS/3AC/48DC/20	1362784	•	•				•													•	•			•	c
TRIO-PS-2G/3AC/72DC/14	1076188	•	•																		•				b
TRIO-PS-2G/230AC-400DC/48DC/5	1157806	•	•																		•				e
TRIO3-PS/1AC/24DC/10/4C/IOL	1252696	•	•				•	•												•	•			•	c
TRIO3-PS/1AC/24DC/20/8C/IOL	1252697	•	•				•	•												•	•			•	c
TRIO3-PS/3AC/24DC/20/8C/IOL	1362791	•	•				•	•												•	•			•	c
TRIO3-PS/3AC/24DC/40/8C/IOL	1362792	•	•				•	•												•	•			•	c
TRIO3-PS/1AC/24DC/5/CO	1523018	•	•				•				•									•	•			•	c
TRIO3-PS/1AC/24DC/10/CO	1523019	•	•				•				•									•	•			•	c
TRIO3-PS/1AC/24DC/20/CO	1523020	•	•				•				•									•	•			•	c

			UL					CSA		Ship						Ex									
		CE/UKCA	UL/C-UL Listed 61010	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	ABS – American Bureau of Shipping	BV – Bureau Veritas	LR – Lloyd's Register	NK – Nippon Kaiji Kyokai	RINA	ATEX/UK-Ex/IECEx	CCC Ex	IEC 60335-1 household standard	PoE standard IEEE 802.3 (145.4.1 Isolation)	SEMI F47-0706 Compliance	CB Scheme	Railway standard EN 50155, 50121-4	Startup at -40°C	Installation altitude
UNO POWER power supplies for the DIN rail																									
UNO-PS/1AC/24DC/30W	2902991	•		•	•	•	•													•	•		•	d
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/100W/H	1088851	•		•	•													•		•	•			a
UNO-PS/1AC/24DC/150W	2904376	•		•	•	•														•	•			c
UNO-PS/1AC/48DC/60W	2902995	•		•	•	•	•													•	•			d
UNO-PS/1AC/48DC/100W	2902996	•		•	•	•														•	•			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/12DC/30W	2902998	•		•	•	•														•	•			a
UNO-PS/1AC/12DC/55W	2902999	•		•	•	•														•	•			d
UNO-PS/1AC/12DC/55W/H	1088850	•		•	•													•		•	•			d
UNO-PS/1AC/12DC/100W	2902997	•		•	•	•														•	•			d
UNO-PS/1AC/5DC/25W	2904374	•		•	•	•														•	•			b
UNO-PS/1AC/5DC/40W	2904375	•		•	•	•														•	•			a
UNO-PS/2AC/24DC/90W/C2LPS	2904371	•		•	•	•	•													•	•			b
UNO2-PS/1AC/24DC/30W/PT	1399932	•	•			•	•													•	•		•	a
UNO2-PS/1AC/24DC/60W/PT	1399933	•	•			•	•													•	•		•	c
UNO2PS/1AC/24DC/90W/PT	1399934	•	•			•	•													•	•		•	a
UNO2-PS/1AC/24DC/120W	1110466	•	•			•														•	•		•	a
UNO2-PS/1AC/24DC/240W	1096432	•	•			•														•	•		•	a
UNO2-PS/1AC/24DC/480W	2910105	•	•			•														•	•		•	a
UNO2-PS/1AC/24DC/960W	1110043	•	•			•														•	•		•	a
UNO2-PS/1AC/48DC/240W	1110155	•	•			•													•	•	•		•	a
UNO2-PS/1AC/12DC/30W/PT	1399935	•	•			•	•													•	•		•	a
UNO2-PS/1AC/12DC/120W/SC	1399940	•	•			•														•	•		•	c

a) max. 3,000 m b) max. 4,000 m c) max. 5,000 m d) max. 6,000 m e) max. 2,000 m
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Approvals for power supplies

		UL						CSA		Ship															
		CE/UKCA	UL/C-UL Listed 61010	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	ABS – American Bureau of Shipping	BV – Bureau Veritas	LR – Lloyd's Register	NK – Nippon Kaiji Kyokai	KNX standard ISO/IEC 14543-3	PoE standard IEEE 802.3 (145.4.1 Isolation)	IEC 60335-1 household standard	LED standard EN 61347-2-13	Charging systems for electric vehicles IEC 61851-21-2	SEMI F47-0706 Compliance	Transformer standard 61558-1/2-16	CB Scheme	Startup at -40°C	Installation altitude
STEP POWER power supplies for the DIN rail																									
STEP3-PS/1AC/24DC/0.63/PT	1088495	•	•			•	•										•		•	•	•	•		b
STEP3-PS/1AC/24DC/1.3/PT	1088494	•	•			•	•										•		•	•	•	•		b
STEP3-PS/1AC/24DC/2.5/PT	1088491	•	•			•	•										•		•	•	•	•		b
STEP3-PS/1AC/24DC/3.75/PT/FL	1088486	•	•			•	•										•		•	•	•	•		b
STEP3-PS/1AC/24DC/4/PT	1040066	•	•			•											•		•	•	•	•		b
STEP3-PS/1AC/24DC/5/PT	1088478	•	•			•											•		•		•	•		b
STEP3-PS/1AC/5DC/3/PT	1170954	•	•			•	•										•		•	•	•	•		b
STEP3-PS/1AC/12DC/1.3/PT	1170952	•	•			•	•										•		•	•	•	•		b
STEP3-PS/1AC/12DC/2.5/PT	1170953	•	•			•	•										•		•	•	•	•		b
STEP3-PS/1AC/12DC/5/PT	1170955	•	•			•	•										•		•	•	•	•		b
STEP3-PS/1AC/15DC/4/PT	1170956	•	•			•	•										•		•	•	•	•		b
STEP3-PS/1AC/48DC/2.5/PT	1285035	•	•			•										•	•		•	•	•	•		c
STEP3-PS/1AC/24DC/3.75/PT/LED	1285036	•	•			•	•										•	•	•	•	•	•		b
STEP3-PS/1AC/24DC/3.75/PT/CO	1321105	•	•			•	•										•		•	•	•	•	•	b
STEP3-PS/1AC/5DC/3/PT/USB-A	1335699	•	•			•	•										•		[1]	•	•	•		b
STEP3-PS/1AC/5DC/3/PT/USB-C	1335698	•	•			•	•										•		[1]	•	•	•		b
STEP3-PS/1AC/KNX/640/LPT	1477019	•	•												•				•	•	•	•		c
STEP3-PS/1AC/KNX/1280/LPT	1477020	•	•												•				•	•	•	•		c

			UL							Ship																
		CE/UKCA	UL/C-UL Listed 61010	UL/C-UL Listed UL 508	UL/C-UL Recognized UL 60950	UL/C-UL Recognized UL 62368-1	UL Listed ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D	UL 1310 NEC Class 2	UL 1741:2021	DNV	ABS – American Bureau of Shipping	BV – Bureau Veritas	LR – Lloyd's Register	NK – Nippon Kaiji Kyokai	EN 62477-1:2012/A12:2021	EN IEC 62909-1/2	VDE-AR-N 4105:2018	EN 50549-1	IEC 60335-1 household standard	Charging systems for electric vehicles IEC 61851-21-2	SEMI F47-0706 Compliance	Transformer standard 61558-1/2-16	CB Scheme	Startup at -40°C	Installation altitude
Power supplies with IP67 degree of protection																										
TRIO-PS67/1AC/24DC/3.75/INC	1278302	•	•					•													•		•		b
TRIO-PS67/1AC/24DC/3.75/M12	1278165	•	•					•													•		•		b
TRIO-PS67/1AC/24DC/3.75/M12-A	1376306	•	•					•													•		•		b
TRIO-PS67/1AC/24DC/3.75/IPD	1278301	•	•					•													•		•		b
TRIO-PS67/1AC/24DC/8/INC	1065976	•	•																				•	•	b
TRIO-PS67/1AC/24DC/10/M12	1111634	•	•																				•	•	b
TRIO-PS67/1AC/24DC/10/M12/5P	1395808	•	•																				•	•	b
TRIO-PS67/1AC/24DC/10/IPD	1111664	•	•																				•	•	b
Power supplies for panel mounting																										
TRIO-PM/1AC/24DC/2500W	1635194	•	•			•															•	•	•	•	c
Power supplies for rack mounting																										
TRIO-HP/3AC/1KDC/20KW/BI	1560712	•							•						•	•	•	•							e

[1] Approval in preparation

a) max. 3,000 m b) max. 4,000 m c) max. 5,000 m d) max. 6,000 m e) max. 2,000 m

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Approvals for DC/DC converters

			UL									Ship							Ex						
		CE/UKCA	UL/C-UL Listed 61010	UL/C-UL Listed UL 508	UL/C-UL Recognized UL 62109-1	UL/C-UL Recognized UL 1741	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	DNV	ABS – American Bureau of Shipping	BV – Bureau Veritas	LR – Lloyd's Register	NK – Nippon Kaiji Kyokai	RINA	RMRS	ATEX/UK-Ex/IECEx	CCC Ex	CB Scheme	Railway standard EN 50155:2007	Railway standard EN 50121-4	EN 50121-3-2	Startup at -40°C	Installation altitude
QUINT POWER DC/DC converters >100 W																									
QUINT4-PS/24DC/24DC/5/PT	2910119	•	•					•			•	•	•	•	•					•			•	•	c
QUINT4-PS/24DC/24DC/5/PT/CO	2910132	•	•					•			•		•	•	•			•	•	•			•	•	c
QUINT4-PS/24DC/24DC/5/SC	1046800	•	•					•			•	•	•	•	•					•			•	•	c
QUINT4-PS/24DC/24DC/10/PT	2910120	•	•					•			•	•	•	•	•					•			•	•	c
QUINT4-PS/24DC/24DC/10/PT/CO	2910133	•	•					•			•		•	•	•			•	•	•			•	•	c
QUINT4-PS/24DC/24DC/10/SC	1046803	•	•					•			•	•	•	•	•					•			•	•	c
QUINT4-PS/24DC/24DC/20/PT	2910121	•	•					•			•	•	•	•	•					•			•	•	c
QUINT4-PS/24DC/24DC/20/SC	1046805	•	•					•			•	•	•	•	•					•			•	•	c
QUINT4-PS/24DC/24DC/20/SC/+	1046881	•	•					•			•	•	•	•	•			•	•	•			•	•	c
QUINT4-PS/24DC/12DC/8/PT	2910122	•	•					•			•	•	•	•	•					•			•	•	c
QUINT4-PS/24DC/48DC/5/PT	2910123	•	•					•			•		•	•	•					•			•	•	c
QUINT4-PS/48DC/24DC/5/PT	2910125	•	•					•			•	•	•	•	•					•			•	•	c
QUINT4-PS/48DC/48DC/5/PT	2910128	•	•					•			•		•	•	•					•			•	•	c
QUINT4-PS/12DC/24DC/5/PT	2910124	•	•					•			•		•	•	•					•			•	•	c
QUINT-PS/60-72DC/24DC/10	2905009	•		•			•	•												•		•	•	•	d
QUINT-PS/60-72DC/24DC/10/CO	2905011	•		•			•	•												•	•	•	•	•	d
QUINT-PS/96-110DC/24DC/10	2905010	•		•			•	•												•		•	•	•	d
QUINT-PS/96-110DC/24DC/10/CO	2905012	•		•			•	•												•	•	•	•	•	d
QUINT POWER DC/DC converters <100 W																									
QUINT4-PS/12-24DC/24DC/1.3/PT	1066716	•	•					•			•									•		•	•	•	c
QUINT4-PS/12-24DC/24DC/1.3/SC	1066703	•	•					•			•									•		•	•	•	c
QUINT4-PS/12-24DC/24DC/2.5/PT	1066714	•	•					•			•									•		•	•	•	c
QUINT4-PS/12-24DC/24DC/2.5/SC	1066718	•	•					•			•									•		•	•	•	c
QUINT4-PS/24-48DC/48DC/2/PT	1098676	•	•					•			•									•		•	•	•	c
QUINT4-PS/48-110DC/24DC/2.5/PT	1066708	•	•					•			•									•		•	•	•	c
QUINT4-PS/12-24DC/5-15DC/2.5/PT	1066704	•	•					•			•									•		•	•	•	c

Approvals for DC/DC converters and inverters

		UL								Ship							Ex							
		CE/UKCA	UL/C-UL Listed 61010	UL/C-UL Listed UL 508	UL/C-UL Recognized UL 62109-1	UL/C-UL Recognized UL 1741	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	DNV	ABS – American Bureau of Shipping	BV – Bureau Veritas	LR – Lloyd's Register	NK – Nippon Kaiji Kyokai	RINA	RMRS	ATEX/UK-Ex/IECEx	CCC Ex	CB Scheme	Railway standard EN 50155:2007	Railway standard EN 50121-4	EN 50121-3-2	Startup at -40°C	Installation altitude
DC/DC converters for photovoltaic applications																									
TRIO-PS-2G/1500DC/24DC/1.5	1107892	•			•	•														•					b
TRIO-PS-2G/1500DC/24DC/8	1075240	•			•															•				•	b
UNO-PS/350-900DC/24DC/60W	2906300	•				•														•				•	c

		UL					CSA		Ship						Ex								
		CE/UKCA	ANSI/UL 61010-1	ANSI/UL 61010-2-201	UL/C-UL Recognized UL 60950	UL 1778	UL 121201 Class I and II, Div 2 and Class III, Div 1 and 2 Hazardous Locations	CAN/CSA-C22.2 No. 61010-1	CAN/CSA-C22.2 No. 61010-2-201	DNV	ABS – American Bureau of Shipping	BV – Bureau Veritas	LR – Lloyd's Register	NK – Nippon Kaiji Kyokai	RINA	ATEX/UK-Ex/ IECEx	CCCEx	DeviceNet™	SEMI F47-0706 Compliance	CB Scheme IEC 61010-1	CB Scheme IEC 61010-2-201	Startup at -40°C	Installation altitude
Inverter for generating alternating current																							
QUINT4-INV/24DC/1AC/600VA/USB	1067325	•	•	•		•	•	•	•	[1]										•	•		a

[1] Approval in preparation

a) max. 3,000 m b) max. 4,000 m c) max. 5,000 m d) max. 6,000 m e) max. 2,000 m

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Approvals for redundancy modules

		UL						CSA		Ship						Ex								
		CE/UKCA	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	ABS – American Bureau of Shipping	BV – Bureau Veritas	LR – Lloyd's Register	NK – Nippon Kaiji Kyokai	RINA	ATEX/UK-Ex/IECEx	CCC Ex	DeviceNet™	SEMI F47-0706 Compliance	CB Scheme	Medical standard IEC 60601	Startup at -40°C	Installation altitude
Active redundancy modules																								
QUINT4-ORING/12-24DC/2X10/2X10	1088206	•		•	•		•				•						•	•			•		•	e
QUINT4-ORING/12-24DC/2X20/2X20	1088207	•		•	•		•				•						•	•			•		•	e
QUINT-ORING/24DC/2X40/1X80	2902879	•		•	•		•				•										•		•	e
QUINT4-S-ORING/12-24DC/1X40	2907752	•		•	•		•				•										•		•	c
QUINT4-S-ORING/12-24DC/1X40/VP	1043418	•		•	•		•				•						•	•			•		•	c
QUINT4-S-ORING/12-24DC/1X40/+	2907753	•		•	•		•				•						•	•			•		•	c
Passive redundancy modules																								
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	•		•	•																•		•	d
STEP3-DIODE/5-24DC/2X5/1X10/PT	1283937	•		•	•		•				•										•		•	d

Approvals for uninterruptible power supplies

		UL								CSA		Ship						Ex							
		CE/UKCA	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	ABS – American Bureau of Shipping	BV – Bureau Veritas	LR – Lloyd's Register	Nippon Kaiji Kyokai	RINA	ATEX/UK-Ex/ IECEx	CCC Ex	SEMI F47-0706 Compliance	CB Scheme	Medical standard IEC 60601	Startup at -40°C	Installation altitude
DC 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/10/485	1322768	•	•					•				1)	1)	1)	1)	1)	1)				•		•	b
QUINT4-UPS/24DC/24DC/20/485	1322782	•	•					•				1)	1)	1)	1)	1)	1)				•		•	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
QUINT4-CHARGER/1AC/24DC/10	2907990	•	•					•																b
QUINT-UPS/24DC/12DC/5/24DC/10	2320461	•			•	•																		e
QUINT-UPS/24DC/24DC/5/1.3AH	2320254	•			•	•		•																e
QUINT-UPS/24DC/24DC/10/3.4AH	2320267	•			•	•		•																e
TRIO3-UPS/1AC/24DC/5	1359613	•	•					1)				1)			1)	1)							•	b
TRIO3-UPS/1AC/24DC/5/485-USV	1359612	•	•					1)				1)			1)	1)							•	b
TRIO3-UPS/1AC/24DC/10	1359610	•	•					1)				1)			1)	1)							•	b
TRIO3-UPS/1AC/24DC/10 485-USV	1359604	•	•					1)				1)			1)	1)							•	b
TRIO-UPS-2G/1AC/24DC/5	2907160	•	•									•			•	•							•	b
TRIO-UPS-2G/1AC/24DC/10	2907161	•	•									•			•	•							•	b
TRIO-UPS-2G/1AC/24DC/20	1105556	•	•									•			•	•							•	b
TRIO-UPS-2G/3AC/24DC/20	2906367	•	•									•			•	•							•	b
MINI-DC-UPS/24DC/2	2866640	•	•		•			•																c
MINI-DC-UPS/12DC/4	2866598	•	•		•			•																d
UNO-UPS/24DC/24DC/60W	2905907	•				•															•			e
STEP-UPS/24DC/24DC/3/46WH	1081430	•			•	•															•			e
STEP-UPS/12DC/12DC/4/46WH	1082548	•			•	•															•			e

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Approvals for battery modules

		UL							CSA		Ship						Ex						
		CE/UKCA	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	ABS – American Bureau of Shipping	BV – Bureau Veritas	LR – Lloyd's Register	Nippon Kaiji Kyokai	RINA	ATEX/UK-Ex/ IECEx	CCC Ex	SEMI F47-0706 Compliance	CB Scheme	Medical standard IEC 60601	Startup at -40°C	Installation altitude
AC uninterruptible power supplies																								
QUINT-HP-UPS/120AC/1.5KVA/PT	1136804	•					•	•																b
QUINT-HP-UPS/230AC/1.5KVA/PT	1136811	•																			•			b
QUINT-HP-UPS/120AC/2.5KVA/PT	1136813	•					•	•																b
QUINT-HP-UPS/230AC/2.5KVA/PT	1136815	•																			•			b
QUINT4-UPS/1AC/1AC/500VA/USB	1067327	•					•	•				[1]									•			a
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

		UL							CSA		Ship						Ex						
		CE/UKCA	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	ABS – American Bureau of Shipping	BV – Bureau Veritas	LR – Lloyd's Register	Nippon Kaiji Kyokai	RINA	ATEX/UK-Ex/ IECEx	CCC Ex	SEMI F47-0706 Compliance	CB Scheme	Medical standard IEC 60601	Startup at -40°C	Installation altitude
Uninterruptible power supplies with integrated capacitor and buffer modules																								
QUINT4-CAP/24DC/3.8/1KJ/PT	2320526	•	•					•	•												•		•	b
QUINT4-CAP/24DC/5/4KJ	2320539	•			•	•		•													•		•	b
QUINT4-CAP/24DC/10/8KJ	2320571	•			•	•		•													•		•	b
QUINT4-CAP/24DC/20/USB	1065635	•	•					•													•		•	b
QUINT4-CAP/24DC/20/PN	1076860	•	•					•													•		•	b
QUINT4-CAP/24DC/20/EIP	1076861	•	•					•													•		•	b
QUINT4-CAP/24DC/20/EC	1076858	•	•					•													•		•	b
STEP-CAP/24VDC/2/0.4KJ	1519633	•																						e
QUINT4-BUFFER/24DC/24DC/20	2907913	•			•	•		•													•		•	b
QUINT4-BUFFER/24DC/24DC/40	2908283	•			•	•		•													•		•	b

		UL							CSA		Ship						Ex									
		CE/UKCA	UL/C-UL Listed 61010	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	ABS – American Bureau of Shipping	BV – Bureau Veritas	LR – Lloyd's Register	NK – Nippon Kaiji Kyokai	RINA	ATEX/UK-Ex/ IECEx	CCC Ex	DeviceNet™	SEMI F47-0706 Compliance	CB Scheme	Medical standard IEC 60601	Startup at -40°C	Installation altitude
UPS-BAT/PB... battery modules																										
UPS-BAT/PB/24DC/1.2AH	1274520	•	•				•				•	•	•	•							•				c
UPS-BAT/PB/24DC/4AH	1274117	•	•				•				•	•	•	•							•				c
UPS-BAT/PB/24DC/7AH	1274118	•	•				•				•	•	•	•							•				c
UPS-BAT/PB/24DC/12AH	1274119	•	•				•				•	•	•	•							•				c
UPS-BAT/PB/24DC/20AH	1348516	•	•				•				•	•	•	•							•				c
UPS-BAT/PB/24DC/40AH	1354641	•	•				•				•	•	•	•							•				c
UPS-BAT/PB/24DC/110AH	1474660	•	•				•														•				c
UPS-BAT/LI... battery modules																										
UPS-BAT/LI/24DC/64WH	1460921	•	•				•				•	[1]									•				c
UPS-BAT/LI/24DC/128WH	1396415	•	•				•				•	[1]									•				c
UPS-BAT/LI/24DC/189WH	1460922	•	•				•				•	[1]									•				c
UPS-BAT/LI/24DC/284WH	1460923	•	•				•				•	[1]									•				c
UPS-BAT/VRLA-WTR... battery modules																										
UPS-BAT/VRLA-WTR/24DC/13AH	2320416	•		•	•		•				•	•	•	•							•				c
UPS-BAT/VRLA-WTR/24DC/26AH	2320429	•		•	•		•				•	•	•	•							•				c
TRIO-BAT battery modules																										
TRIO-BAT/24DC/1.2AH	1394729	•	•				•				•										•				c
TRIO-BAT/24DC/4AH	1394730	•	•				•				•										•				c
TRIO-BAT/24DC/7AH	1384031	•	•				•				•										•				c
TRIO-BAT/24DC/12AH	1394727	•	•				•				•										•				c
MINI-BAT battery modules																										
MINI-BAT/24DC/0.8AH	2866666	•																								c
MINI-BAT/12DC/1.6AH	2866572	•																								c
MINI-BAT/12DC/2.6AH	2866569	•																								c
STEP-BAT battery modules																										
STEP-BAT/LI-ION/18.5DC/46WH	1081355	•																			•					e

[1] Approval in preparation

a) max. 3,000 m b) max. 4,000 m c) max. 5,000 m d) max. 6,000 m e) max. 2,000 m

All products receive further approvals on a continual basis.

For up-to-date information, go to the "Downloads" area for the respective items on the Phoenix Contact website.

Power Reliability – endless possibilities

Solutions for superior system availability

Increasing electrification, networking, and automation means a growing dependency on reliable power supply solutions. For efficient system operation, we offer you solutions that combine surge protection, EMC filters, energy measuring devices, power supplies, and device circuit breakers. Choose Phoenix Contact, a partner who provides you with holistic concepts for high system availability.

Surge protection

Our coordinated product portfolio for surge protection enables the implementation of protection concepts for almost any application.

EMC filters

The EMC filters limit and filter high-frequency interference voltages and currents for an EMC-compliant power supply.

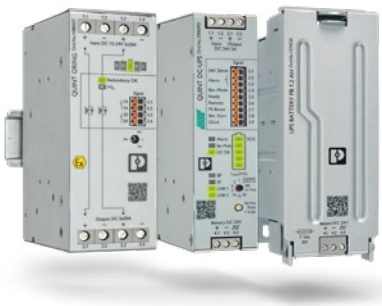
Energy monitoring

Efficient monitoring, providing the basis for your energy management. Our coordinated measuring devices enable efficient energy data acquisition.

Power Reliability

Power supplies

Supply your applications safely and reliably. Choose from our range: AC/DC power supplies, DC/DC converters, DC/AC inverters, and power electronics.



Redundancy modules and UPS

Prevent system downtimes and power failures with our redundancy modules and uninterruptible power supplies.

Device circuit breakers

Protect your equipment against overload and short circuit with electronic, thermal-magnetic, and thermal device circuit breakers.

Open communication with customers and partners worldwide

Phoenix Contact is a global market leader based in Germany. We are known for producing forward-thinking products and solutions for the comprehensive electrification, networking, and automation of all sectors of the economy and infrastructure. With a global network, we maintain close relationships with our customers, something we believe is essential for our common success.

You can find your local partner at

phoenixcontact.com

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