COMPLETE line

2021

Power supply systems

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

PHOENIX CONTACT
INSPIRING INNOVATIONS

Power for superior system availability
Leading technology and high quality

You supply your systems safely with our QUINT, TRIO, UNO, 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, ship building
- TRIO POWER: Machine building
- UNO POWER: Urban infrastructure
- STEP POWER: Building automation, e-mobility

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 superior 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

3 Redundancy modules

With our redundant solutions, you secure systems with the most stringent 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

4 Uninterruptible power supplies

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

- DC and AC UPS modules with communications interface
- UPS modules with integrated energy storage
- UPS modules with integrated power supply
- Comprehensive selection of energy storage devices

Contents

1

Power supplies
Compare your advantages

Maximize the availability of your systems with high-quality power supplies featuring leading technology. The product families differ with regard to their design, power, and functionality. Find your solution among our four product families.

Shared features and differences

Power supplies of all product families enhance system availability. They can be used worldwide, thanks to their international approval package and wide range input. Each power supply features high operational safety. They can all be connected in parallel and can also be installed easily in outdoor control cabinets.

	QUINT POWER		TRIO POWER	UNO POWER	STEP POWER
	<100 W	>100 W			
Can be used worldwide, thanks to the wide range input and international approval package	•	•	•	•	•
Maximum operating time with a high MTBF >500,000 h at +40°C	•	•	•	•	•
Can be switched in parallel for increased performance and redundancy	•	•	•	•	•
Outdoor installation permissible with a wide temperature range of -25°C ... +70°C	•	•	•	•	•
Can be used in household applications in accordance with EN 60335					•
Active function monitoring via switching output for remote diagnostics	•	•	•	•	
Three-phase devices continue to operate without errors, even if one phase fails permanently		•	•		
Reliable startup of difficult loads with the dynamic boost power reserve	•	•	•		
Easy system extension with the static boost power reserve	•*	•			
Magnetic tripping of miniature circuit breakers with SFB Technology		•			
Preventive function monitoring reports critical operating states before errors occur	•	•			
Can be configured individually		•			

* Applies to the following devices: 2904597, 2904598, 2909575, 2909576, 2904605, 2904595

QUINT POWER

- Powerful, and with maximum functionality
- For power from 30 W to 1,000 W
- SFB Technology for power above 100 W
- Preventive function monitoring
- Easy system extension
- Startup of difficult loads
- High level of immunity to interference
- Part of the COMPLETE line system

More information starting on page 6

UNO POWER

- Compact with basic functionality
- High power density and low idling losses
- Active function monitoring
- Large product range for all voltage levels
- Narrow housing from 22.5 mm to 59 mm wide
- Alignable without minimum clearance to neighboring modules

More information starting on page 20

TRIO POWER

- Robust with standard functionality
- Ideally suited for machine building
- Electrically and mechanically robust with high vibration and shock resistance
- Reliable startup of difficult loads
- Push-in connection technology
- Space-saving design

More information starting on page 14

STEP POWER

- For industry and building automation
- Maximum energy efficiency due to very low idling losses and a high degree of efficiency
- Efficiency level VI
- EN 60335 enables use in domestic applications
- Push-in connection technology
- Flexible assembly: can be snapped onto or screwed onto a level surface

More information starting on page 24

QUINT POWER
For power from 30 W to 1,000 W

With our small, compact QUINT POWER power supplies, we provide you with the combination of preventive function monitoring and exceptional power reserves in a compact size. The powerful QUINT POWER power supplies with SFB Technology, preventive function monitoring, and configurable settings safeguard your system availability.

SFB Technology
Designed by Phoenix Contact

Your advantages <100 W

- Startup of difficult loads, thanks to dynamic boost
- Preventive function monitoring reports critical operating states before errors occur
- High efficiency and long service life with low power dissipation and low heating
- Compact, slim-line design saves space in the control cabinet

Your advantages >100 W

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

Technologies and advantages

SFB (Selective Fuse Breaking) Technology

For superior 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 triggers 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

QUINT POWER <100 W

Powerful and space-saving
In the power range of up to 100 W, QUINT POWER meets the most stringent system demands with a compact size.

Preventive function monitoring and exceptional power reserves are now available for applications in the low power range as well. Moreover, the devices have a high efficiency of up to 93.7% and a long service life. You can choose between Push-in connection and screw connection technology for these power supplies for the low-power range.

QUINT POWER >100 W

SFB Technology
Designed by Phoenix Contact

Powerful with SFB Technology
Our powerful QUINT POWER power supplies with SFB Technology are ideally suited for safeguarding your system availability. The power reserve enables the easy extension of your system, as well as the trouble-free start-up of difficult loads. Static boost with sustained power of up to 125% is available for system extension. 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 <100 W

	QUINT POWER, with 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
Order 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
Order No.	2904605		2904607
	5 V / 5 A		
Type	QUINT4-PS/1AC/5DC/5/PT		
Order No.	2904595		

	QUINT POWER, with 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
Order No.	2904597	2904598	2904599

QUINT POWER >100 W

	QUINT POWER, 1~			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	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
Order No.	2904600	2904601	2904602	2904603
		12 V / 15 A		
Type		QUINT4-PS/1AC/12DC/15		
Order No.		2904608		
		48 V / 5 A	**48 V / 10 A**	**48 V / 20 A** new
Type		QUINT4-PS/1AC/48DC/5	QUINT4-PS/1AC/48DC/10	QUINT4-PS/1AC/48DC/20
Order No.		2904610	2904611	2904612

	QUINT POWER, 1~		SFB Technology Designed by Phoenix Contact
			
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 new		
Type	QUINT4-PS/1AC/110DC/4		
Order No.	2904613		

	QUINT POWER*, 1~		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	32 x 130 x 125	90 x 130 x 125	
	24 V / 3.5 A	**12 V / 20 A**	
Type	QUINT-PS/1AC/24DC/ 3.5	QUINT-PS/1AC/12DC/20	
Order No.	2866747	2866721	

*) Devices with differing functions; additional information is available on the product pages at www.phoenixcontact.com

QUINT POWER >100 W

	QUINT POWER, 3~			SFB Technology Designed by Phoenix Contact
				
Input	3x 320 V AC … 550 V AC 2x 360 V AC … 550 V AC ±195 V DC … 390 V DC	3x 320 V AC … 550 V AC 2x 360 V AC … 550 V AC ±226 V DC … 390 V DC	3x 320 V AC … 550 V AC 2x 360 V AC … 550 V AC ±226 V DC … 390 V DC	3x 320 V AC … 550 V AC 2x 360 V AC … 550 V AC ±226 V DC … 390 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
Order No.	2904620	2904621	2904622	2904623
				48 V / 20 A new
Type				QUINT4-PS/3AC/48DC/20
Order No.				2904627

Maximum protection for your system

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

5-year warranty
If your fourth-generation QUINT POWER becomes damaged in the first five years following purchase despite the using this combination, you will receive a free replacement.

For more information and the conditions, search Order Number 2907928 on www.phoenixcontact.com

QUINT POWER with SFB Technology for extreme ambient conditions

The PCB coating (CO stands for coated) protects against dust, corrosive gases, and 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.

DC/DC converters with the same properties are listed on page 34.

Redundancy modules for extreme conditions are listed as of page 43.

QUINT POWER for extreme environments

	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	
W x H x D in mm	70 x 130 x 125	50 x 130 x 125	70 x 130 x 125	

	24 V / 20 A / +	24 V / 10 A / CO	48 V / 10 A / CO	
Type	QUINT4-PS/1AC/24DC/20/+	QUINT4-PS/1AC/24DC/10/CO	QUINT4-PS/1AC/48DC/10/CO	
Order No.	2904617	2904625	2904626	

	QUINT POWER*, 1~ and 3~, with protective coating			
				
Input	85 V AC … 264 V AC 90 V DC … 430 V DC	85 V AC … 264 V AC 90 V DC … 430 V DC	85 V AC … 264 V AC 90 V DC … 430 V DC	3x 320 V AC … 575 V AC 450 V DC … 800 V DC
W x H x D in mm	40 x 130 x 125	60 x 130 x 125	90 x 130 x 125	69 x 130 x 125

	1 AC / 24 V / 5 A / CO	1 AC / 24 V / 10 A / CO	1 AC / 24 V / 20 A / CO	3 AC / 24 V / 20 A / CO
Type	QUINT-PS/1AC/24DC/ 5/CO	QUINT-PS/1AC/24DC/10/CO	QUINT-PS/1AC/24DC/20/CO	QUINT-PS/3AC/24DC/20/CO
Order No.	2320908	2320911	2320898	2320924

*) Devices with differing functions; additional information is available on the product pages at www.phoenixcontact.com

QUINT POWER Plus version – the power supply for complex applications

The QUINT POWER Plus version is the solution for complex applications under extreme ambient conditions.

With MOSFET integrated decoupling for 1+1 and n+1 redundancy, the Plus version provides symmetrical load distribution and increases system availability. Errors can be detected early on via configurable output current signaling thresholds. At the same time, you save time and space thanks to the reduced wiring work.

The Plus version with double OVP (overvoltage protection) also protects your system against voltage increases. If an error occurs, 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 version satisfies these requirements (SIL 3, HFT = 1 in accordance with IEC 61508 and IEC 61511), thus ensuring maximum operational safety.

With a protective coating and ATEX and IECEx approval in accordance with the standards IEC 60079-0, IEC 60079-7, IEC 60079-11, and IEC 60079-15, it can also be used within potentially explosive areas of zone 2.

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

Power supplies

Device circuit breakers – suitable for everyone

Increase our system availability by safeguarding the output voltage of your power supply. Protect your system effectively against overload and short-circuit currents at the same time.

The complete portfolio of electronic circuit breakers also provides intelligent protection. Take advantage of easy handling and simple product selection.

Your advantages

- Suitable device protection for any requirement, thanks to the complete portfolio
- Monitor system statuses with intelligent analysis and fault signaling
- Easy startup, thanks to tool-free connection technology and intuitive operation

Device circuit breakers

	Device circuit breaker system			
				
	Power module new	**Two-channel** new	**Four-channel** new	**Busbar** new
Nominal current		2 A … 10 A	1 A … 10 A	
Type	CAPAROC PM PN	CAPAROC E2 12-24DC/2-10A	CAPAROC E4 12-24DC/1-10A	CAPAROC CR 20
Order No.	1110986	1110984	1115658	1110989

	Multi-channel, electronic device circuit breakers			
				
	Four-channel	**Eight-channel**	**Four-channel***	**Four-channel**
Nominal current	0.5 A … 10 A	0.5 A … 10 A	1 A … 4 A	1 A … 10 A
Type	CBM E4 24DC/0.5-10A NO-R	CBM E8 24DC/0.5-10A NO-R	CBMC E4 24DC/1-4A NO	CBMC E4 24DC/1-10A NO
Order No.	2905743	2905744	2906031	2906032

	Single-channel, electronic circuit breakers			
				
	Single-channel*	**Single-channel**	**Single-channel***	**Single-channel**
Nominal current	1 A … 3 A	1 A … 8 A	2 A	6 A
Type	PTCB E1 24DC/1-3A NO	PTCB E1 24DC/1-8A NO	PTCB E1 24DC/2A NO	PTCB E1 24DC/6A NO
Order No.	2909909	2908262	2909903	2909908

	Thermomagnetic device circuit breakers			Base element
				
	F1	**SFB**	**M1**	**Push-in connection**
Nominal current	0.5 A	6 A	16 A	
Type	CB TM1 0.5A F1 P	CB TM1 6A SFB P	CB TM1 16A M1 P	CB 1/6-2/4 PT-BE
Order No.	2800857	2800841	2800856	2800929

*) NEC Class 2 outputs, in accordance with UL 1310

TRIO POWER
Robust with standard functionality

These power supplies feature high quality and reliability. They are particularly well-suited for use in machine building. The electrically and mechanically robust power supplies with a space-saving design ensure a reliable supply to all loads, even under harsh ambient conditions.

Your advantages

- ☑ Very cost-effective with time-saving, tool-free Push-in connection and a slim design
- ☑ Reliable starting of difficult loads with the dynamic power reserve, which provides 150% of the nominal current for a maximum of 5 s
- ☑ Electrically robust with high electric strength
- ☑ Mechanically robust with high vibration and shock resistance

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	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	30 x 130 x 115	35 x 130 x 115	42 x 130 x 160	68 x 130 x 160

	24 V / 3 A / C2LPS*	24 V / 5 A	24 V / 10 A	24 V / 20 A
Type	TRIO-PS-2G/ 1AC/24DC/3/C2LPS	TRIO-PS-2G/ 1AC/24DC/5	TRIO-PS-2G/ 1AC/24DC/10	TRIO-PS-2G/ 1AC/24DC/20
Order No.	2903147	2903148	2903149	2903151
		24 V / 5 A / B+D**	24 V / 10 A / B+D**	
Type		TRIO-PS-2G/ 1AC/24DC/5/B+D	TRIO-PS-2G/ 1AC/24DC/10/B+D	
Order No.		2903144	2903145	
	12 V / 5 A / C2LPS*	12 V / 10 A		
Type	TRIO-PS-2G/ 1AC/12DC/5/C2LPS	TRIO-PS-2G/ 1AC/12DC/10		
Order No.	2903157	2903158		
			48 V / 5 A	48 V / 10 A
Type			TRIO-PS-2G/1AC/48DC/5	TRIO-PS-2G/1AC/48DC/10
Order No.			2903159	2903160

	TRIO POWER, 3~			
				
Input	3x 320 V AC … 575 V AC 2x 360 V AC … 575 V AC	3x 320 V AC … 575 V AC 2x 360 V AC … 575 V AC	3x 320 V AC … 575 V AC 2x 360 V AC … 575 V AC	3x 320 V AC … 575 V AC
W x H x D in mm	35 x 130 x 115	42 x 130 x 160	65 x 130 x 160	110 x 130 x 160

	24 V / 5 A	24 V / 10 A	24 V / 20 A	24 V / 40 A
Type	TRIO-PS-2G/3AC/24DC/5	TRIO-PS-2G/3AC/24DC/10	TRIO-PS-2G/3AC/24DC/20	TRIO-PS-2G/3AC/24DC/40
Order No.	2903153	2903154	2903155	2903156

	TRIO POWER, 3~	
		
Input	3x 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	
Order No.	1076188	

*) NEC Class 2 output, certified in accordance with UL 1310/Limited Power Source (LPS) in accordance with UL 60950-1
**) Bridge and Deck, optimized for use on ship's bridges

TRIO POWER IP67

TRIO POWER power supplies with IP67 degree of protection

Robust TRIO POWER power supplies with IP67 degree of protection are ideally suited for distributed supply in the field. The weather-resistant aluminum housing protects the devices against dust and water.

This enables the power supplies to ensure high system availability even in harsh ambient condition. Various device connections provide flexibility during assembly.

Your advantages

- ☑ Direct installation at the load in the field reduces cable lengths and saves space in the control cabinet
- ☑ The robust aluminum housing ensures high system availability with resistance to extreme ambient conditions (temperature, dust, and water)
- ☑ Reliable startup of difficult loads with dynamic boost
- ☑ Improved diagnostic options in the field with DC OK LED and AC OK LED

TRIO POWER IP67

	TRIO POWER, circular connectors, 1~	TRIO POWER, circular connectors, 3~
		
Input	90 V AC … 264 V AC 99 V DC … 275 V DC	3x 320 V AC … 575 V AC 2x 360 V AC … 575 V AC
W x H x D in mm	151 x 304 x 120	151 x 304 x 120

	24 V / 20 A	24 V / 20 A
Type	TRIO-PS-IP67/1AC/24DC/20	TRIO-PS-IP67/3AC/24DC/20
Order No.	1039830	1039829

	TRIO POWER, 7/8" circular connectors, 1~	TRIO POWER, M12 circular connectors, 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
W x H x D in mm	136 x 240 x 53	136 x 240 x 53

	24 V / 8 A new	24 V / 10 A new
Type	TRIO-PS67/1AC/24DC/8/INC	TRIO-PS67/1AC/24DC/10/M12
Order No.	1065976	1111634

	TRIO POWER, IPD panel feed-through with Push-in spring connection, 1~	
		
Input	90 V AC … 264 V AC 99 V DC … 275 V DC	
W x H x D in mm	136 x 292 x 53	

	24 V / 10 A new	
Type	TRIO-PS67/1AC/24DC/10/IPD	
Order No.	1111664	

TRIO CROSS POWER

For power distribution boards

The CrossPowerSystem is particularly well-suited for use in machine building. All functions and the space-saving design are tailored to the stringent demands in this field. Push-in connection enables quick and easy connection of 24 V DC loads.

Tool-free mounting and automatic contacting via convenient snap-on connections enable easy commissioning.

Connection side at the power distribution board

Your advantages

- Push-in connection enables quick and easy snap-on connection of 24 V DC loads
- Fast commissioning: Tool-free mounting and automatic contacting in just one step (CrossPowerSystem)
- Reliable startup of difficult loads with dynamic boost
- Electrically robust with high electric strength
- High degree of flexibility with the wide temperature range of -25°C … +70°C and device startup at -40°C

TRIO CROSS POWER

	TRIO CROSS POWER, 3~	
		 IO-Link
Input	3x 320 V AC … 575 V AC	3x 320 V AC … 575 V AC
W x H x D in mm	36 x 160 x 159	70.5 x 209.7 x 170

	24 V / 5 A	24 V / 20 A / 8C / IOL
Type	EM-CPS-PS/3AC/24DC/5	EM-CPS-PS/3AC/24DC/20/8C/IOL
Order No.	1064922	1067898

TRIO CROSS POWER
With 8-channel electronic circuit breakers

The 20 A power supply with an integrated 8- channel electronic circuit breaker also provides reliable protection for disconnection in the event of errors (overload or short circuit) and comprehensive diagnostics options.

Channel-specific nominal voltages can be configured without tools via LED buttons in 1 A increments (1 A to 10 A). You can access the power supply from anywhere in the world via the IO-Link infrastructure.

CrossPowerSystem

The CrossPowerSystem is a new open platform for modular and functional control cabinets. Three-phase devices can be mounted on the power distributor easily via Plug and Play. Time is money, and this is particularly true when it comes to setting up machines and systems.

Thanks to the combination of power distribution and switching devices, mounting on the power distribution board is now even faster. Integrated reverse pole protection also prevents errors and ensures even simpler commissioning.

UNO POWER
Compact and highly efficient

Thanks to their high power density, UNO POWER power supplies are the perfect solution, particularly in compact control cabinets. The efficient technology with low no-load losses and high efficiencies in a small housing covers loads from 25 W to 480 W. The new, very narrow UNO POWER generation also stands out thanks to its relay contact.

Your advantages

- Save space in the control cabinet thanks to the narrow overall width
- Save energy thanks to the high degree of efficiency
- Outdoor installation and reliable device startup at -40°C
- Easy output voltage system diagnostics with the floating switch contact and DC OK LED
- Alignable without minimum clearance to neighboring modules

Technologies and advantages

From 25 W to 480 W

UNO POWER provides the greatest possible power in the least possible space.

Class 2 certification

Devices with C2LPS approval are ideal for the American market.

Household appliance approval

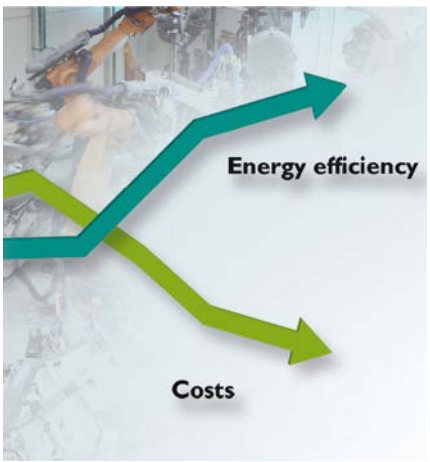
Certification in accordance with DIN EN 603351-1 of the 55W/H and the 100W/H device allow use in private households.

Maximum energy efficiency

The efficient technology with low no-load losses and high efficiencies in a small housing covers loads from 25 W to 480 W.

Compared with other products on the market, using the UNO POWER power supply provides excellent energy savings, achieved through low no-load losses below 0.3 W and optimized efficiency.

With efficiency coefficients of over 94% at nominal load, just a small amount of electrical energy is converted into undesired heat energy.



2nd generation UNO POWER

UNO POWER power supplies are optimal for use in industrial applications and urban infrastructures.

The new generation covers the performance class up to 480 W. For simple system diagnostics, there is a floating relay contact available for the performance classes from 120 W to 480 W.

In machine building, the UNO POWER power supplies are the ideal partner for small systems with basic demands. In urban infrastructures, the devices stand out due to their Power over Ethernet capability for the voltage ranges from 48 V to 56 V.

2nd generation UNO POWER

	UNO POWER, 1~		
			
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 new	24 V / 240 W new	24 V / 480 W
Type	UNO2-PS/1AC/24DC/120W	UNO2-PS/1AC/24DC/240W	UNO2-PS/1AC/24DC/480W
Order No.	1110466	1096432	2910105
		48 V / 240 W new	
Type		UNO2-PS/1AC/48DC/240W	
Order No.		1110155	

1st generation UNO POWER

	UNO POWER, 1~		
			
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	22.5 x 90 x 84	35 x 90 x 84	55 x 90 x 84

	24 V / 30 W	**24 V / 60 W**	**24 V / 100 W**
Type	UNO-PS/1AC/24DC/ 30W	UNO-PS/1AC/24DC/ 60W	UNO-PS/1AC/24DC/100W
Order No.	2902991	2902992	2902993
			24 V / 100 W / H* new
Type			UNO-PS/1AC/24DC/100W/H
Order No.			1088851
			24 V / 90 W / C2LPS**
Type			UNO-PS/1AC/24DC/90W/C2LPS
Order No.			2902994
		48 V / 60 W	**48 V / 100 W**
Type		UNO-PS/1AC/48DC/ 60W	UNO-PS/1AC/48DC/100W
Order No.		2902995	2902996
	15 V / 30 W	**15 V / 55 W**	**15 V / 100 W**
Type	UNO-PS/1AC/15DC/30W	UNO-PS/1AC/15DC/ 55W	UNO-PS/1AC/15DC/100W
Order No.	2903000	2903001	2903002
	12 V / 30 W	**12 V / 55 W**	**12 V / 100 W**
Type	UNO-PS/1AC/12DC/ 30W	UNO-PS/1AC/12DC/ 55W	UNO-PS/1AC/12DC/100W
Order No.	2902998	2902999	2902997
		12 V / 55 W / H* new	
Type		UNO-PS/1AC/12DC/ 55W/H	
Order No.		1088850	
	5 V / 25 W	**5 V / 40 W**	
Type	UNO-PS/1AC/ 5DC/ 25W	UNO-PS/1AC/ 5DC/ 40W	
Order No.	2904374	2904375	

	UNO POWER, 1~		UNO POWER, 2~
			
Input	85 V AC … 264 V AC	85 V AC … 264 V AC	2x 264 V AC … 575 V AC
W x H x D in mm	37 x 130 x 125	45 x 130 x 125	55 x 90 x 84

	24 V / 150 W	**24 V / 240 W**	**24 V / 90 W / C2LPS****
Type	UNO-PS/1AC/24DC/150W	UNO-PS/1AC/24DC/240W	UNO-PS/2AC/24DC/90W/C2LPS
Order No.	2904376	2904372	2904371

*) Can be used in household applications in accordance with EN 60335
**) NEC Class 2 output, certified in accordance with UL 1310/Limited Power Source (LPS) in accordance with UL 60950-1

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.

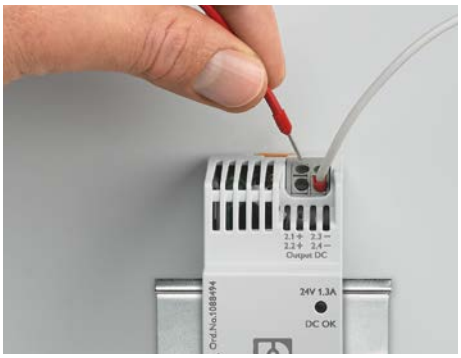
Your advantages

- Energy savings with the highest level of efficiency in no-load and part-load operation (Efficiency Level VI)
- Space savings in the control cabinet thanks to 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 commissioning with tool-free Push-in connection technology at a 45° angle with double terminal points

Technologies and advantages

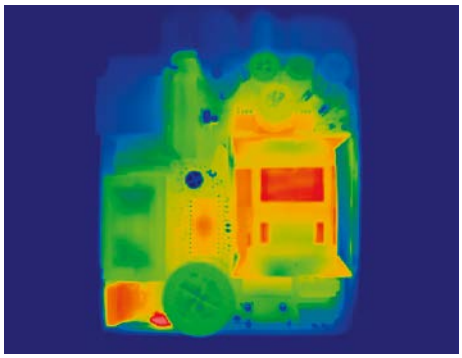
Flexible mounting

The power supplies can be snapped onto the DIN rail or screwed onto a level surface.



Push-in connection

The connection terminal blocks with 45° angle provide twice the number of terminal points.



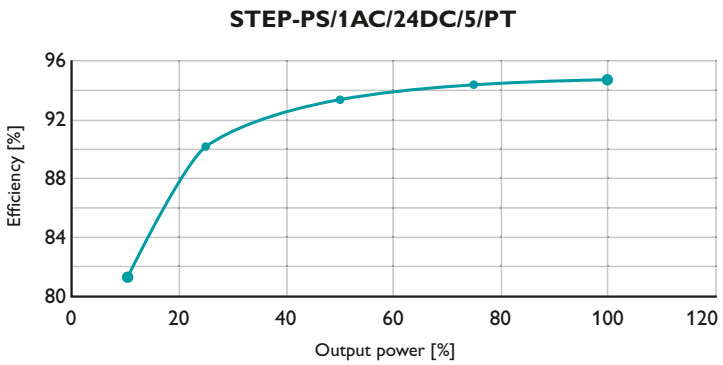
High energy efficiency

Only a little electrical energy is converted into undesired heat energy.

Efficiency Level VI and EcoDesign requirements

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

They also meet the European EcoDesign requirements, whose goal is to improve energy efficiency and environmental compatibility.



Building automation

Whether in the home charger in front of the house, the sun protection in the office building, or the baking oven in the supermarket, power supplies meet stringent demands 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.

STEP POWER with household approval (EN 60335)

	STEP POWER, 1~			
				 Flat design
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 … 275 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 43
	24 V / 0.63 A	**24 V / 1.3 A**	**24 V / 2.5 A**	**24 V / 3.75 A** new
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/3.75/ PT/FL
Order No.	1088495	1088494	1088491	1088486

	STEP POWER, 1~			
				
Input	85 V AC … 264 V AC 88 V DC … 350 V DC	85 V AC … 264 V AC 99 V DC … 350 V DC		
W x H x D in mm	72 x 90 x 61	72 x 90 x 61		
	24 V / 4 A	**24 V / 5 A**		
Type	STEP3-PS/1AC/24DC/4/PT	STEP3-PS/1AC/24DC/5/PT		
Order No.	1140066	1088478		

	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	85 V AC … 264 V AC 88 V DC … 275 V DC	
W x H x D in mm	18 x 90 x 61	36 x 90 x 61	18 x 90 x 61	
	12 V / 1.3 A new	**12 V / 2.5 A** new	**5 V / 3 A** new	
Type	STEP3-PS/1AC/12DC/1.3/PT	STEP3-PS/1AC/12DC/2.5/PT	STEP3-PS/1AC/5DC/3/PT	
Order No.	1170952	1170953	1170954	

STEP POWER

	STEP POWER, 1~			
		 Flat design		
Input	85 V AC … 264 V AC 95 V DC … 250 V DC	85 V AC … 264 V AC 95 V DC … 250 V DC	85 V AC … 264 V AC 95 V DC … 250 V DC	85 V AC … 264 V AC 95 V DC … 250 V DC
W x H x D in mm	18 x 90 x 61	36 x 90 x 43	36 x 90 x 61	54 x 90 x 61

	24 V / 0.5 A	24 V / 0.75 A	24 V / 0.75 A	24 V / 1.75 A
Type	STEP-PS/ 1AC/24DC/0.5	STEP-PS/ 1AC/24DC/0.75/FL	STEP-PS/ 1AC/24DC/0.75	STEP-PS/ 1AC/24DC/1.75
Order No.	2868596	2868622	2868635	2868648
	12 V / 1 A	**12 V / 1.5 A**	**12 V / 1.5 A**	**12 V / 3 A**
Type	STEP-PS/ 1AC/12DC/1	STEP-PS/ 1AC/12DC/1.5/FL	STEP-PS/ 1AC/12DC/1.5	STEP-PS/ 1AC/12DC/3
Order No.	2868538	2868554	2868567	2868570
	5 V / 2 A			
Type	STEP-PS/ 1AC/ 5DC/2			
Order No.	2320513			

	STEP POWER, 1~		STEP for 48 V AC	STEP for 277 V AC
				
Input	85 V AC … 264 V AC 95 V DC … 250 V DC	85 V AC … 264 V AC 95 V DC … 250 V DC	43 V AC … 52 V AC 60 V DC … 80 V DC	85 V AC … 305 V AC 95 V DC … 250 V DC
W x H x D in mm	72 x 90 x 61	90 x 90 x 61	18 x 90 x 61	90 x 90 x 61

	24 V / 2.5 A	24 V / 4.2 A	24 V / 0.5 A	24 V / 3.5 A
Type	STEP-PS/ 1AC/24DC/2.5	STEP-PS/ 1AC/24DC/4.2	STEP-PS/48AC/24DC/0.5	STEP-PS/277AC/24DC/3.5
Order No.	2868651	2868664	2868716	2904945
	15 V / 4 A	**24 V / 3.8 A / C2LPS***		
Type	STEP-PS/ 1AC/15DC/4	STEP-PS/ 1AC/24DC/3.8/C2LPS		
Order No.	2868619	2868677		
	12 V / 5 A	**48 V / 2 A**		
Type	STEP-PS/ 1AC/12DC/5	STEP-PS/ 1AC/48DC/2		
Order No.	2868583	2868680		
	5 V / 6.5 A			
Type	STEP-PS/ 1AC/ 5DC/6.5			
Order No.	2868541			

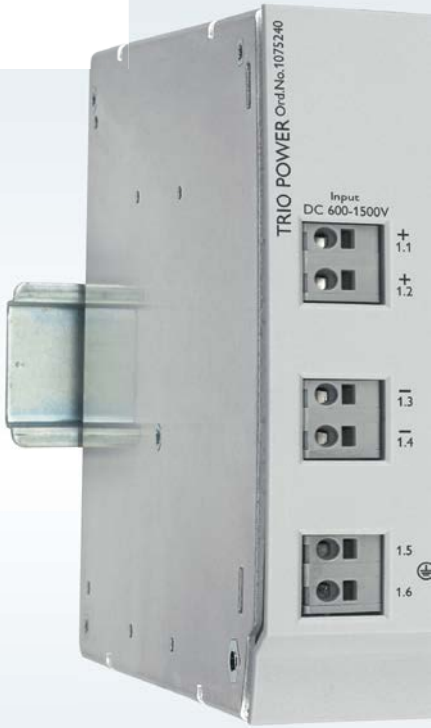
*) NEC Class 2 output, certified in accordance with UL 1310/Limited Power Source (LPS) in accordance with UL 60950-1

DC/DC converters and DC/AC inverters
Everything for the right voltage

Phoenix Contact offers you 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 convert your direct current into alternating current reliably.



QUINT DC/DC converters for power ratings <100 W

With static and dynamic boost

More information starting on page 30

QUINT DC/DC converters for power ratings >100 W

With SFB Technology

More information starting on page 30

TRIO DC/DC converters for photovoltaic systems

For distributed power supply in the field

More information starting on page 36

QUINT-INVERTER

For generating alternating current in DC applications

More information starting on page 38

QUINT DC/DC converters
High performance in all power ranges

Our DC/DC converters from the QUINT POWER family cover all power ranges from 30 W. The new devices for the power range up to 100 W feature a compact size. The QUINT DC/DC converters with SFB Technology ensure the availability of your system in the high power ranges.

SFB Technology

Designed by Phoenix Contact

Your advantages

- Power reserve for easy system extension with a static boost with a sustained power of up to 125% and starting up difficult loads with a dynamic boost of up to 200% for up to 5 seconds
- High efficiency and long service life with low power dissipation and low heating
- Preventive function monitoring reports critical operating states before errors occur
- Free choice between Push-in and screw connection

Technologies and advantages

Regulated DC voltage

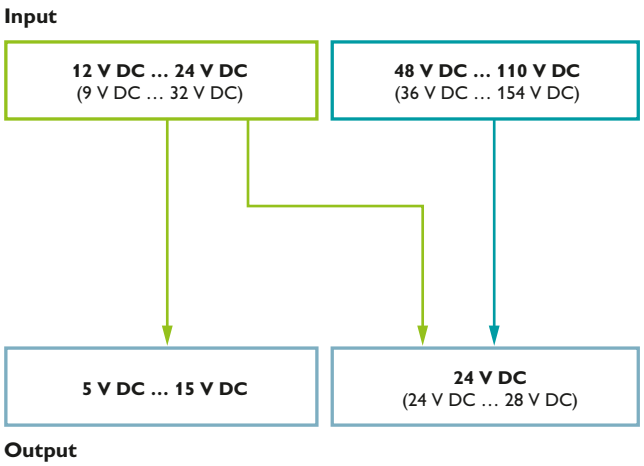
Avoid disturbances in your application by using DC/DC converters. They regenerate voltages so that the load is always supplied with a regulated DC voltage, even in the case of long cable lengths.

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

QUINT POWER <100 W

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

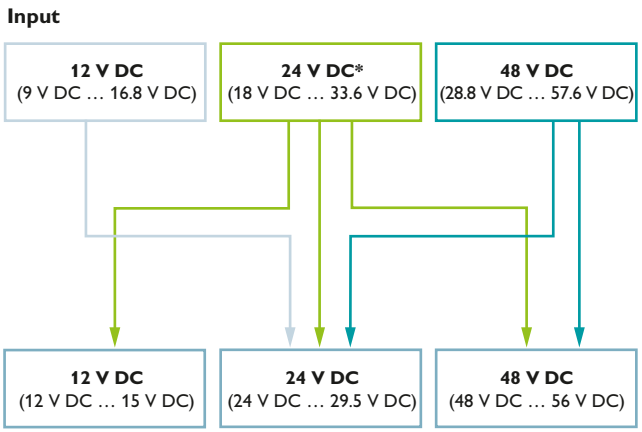
The low housing depth of 89 mm enables installation in flat control cabinets, and the DNV-GL approval means they can be used in maritime environments. Device start-up at -40°C ensures reliable operation under extreme ambient conditions.



QUINT POWER >100 W

Powerful with SFB Technology
The DC/DC converters for the high power ranges have SFB Technology (Selective Fuse Breaking). It ensures that standard LS switches are selectively tripped so that loads connected in parallel can continue to operate without interruption.

These DC/DC converters are suitable for high power ratings with currents of 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.



* From 14 V DC ... 33.6 V DC during operation

QUINT POWER DC/DC converters <100 W

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

	12 V … 24 V / 24 V / 1.3 A new	12 V … 24 V / 24 V / 2.5 A new
Type	QUINT4-PS/12-24DC/24DC/1.3/PT	QUINT4-PS/12-24DC/24DC/2.5/PT
Order No.	1066716	1066714
	12 V … 24 V / 5 V … 15 V / 2.5 A new	
Type	QUINT4-PS/12-24DC/5-15DC/2.5/PT	
Order No.	1066704	
		48 V … 110 V / 24 V / 2.5 A new
Type		QUINT4-PS/48-110DC/24DC/2.5/PT
Order No.		1066708

	QUINT POWER, with 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 new	12 V … 24 V / 24 V / 2.5 A new
Type	QUINT4-PS/12-24DC/24DC/1.3/SC	QUINT4-PS/12-24DC/24DC/2.5/SC
Order No.	1066703	1066718

QUINT POWER DC/DC converters >100 W

	QUINT POWER, with 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
Order No.	2910119	2910120	2910121

	QUINT POWER, with 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	
Order No.	2910122	2910123	

	QUINT POWER, with 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 new	**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
Order No.	2910124	2910125	2910128

QUINT POWER DC/DC converters >100 W

	QUINT POWER, with screw connection			
				
Input	18 V DC … 32 V DC	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	70 x 130 x 125
	24 V / 24 V / 5 A	**24 V / 24 V / 10 A**	**24 V / 24 V / 20 A**	**24 V / 24 V / 20 A / +** new
Type	QUINT4-PS/ 24DC/24DC/5/SC	QUINT4-PS/ 24DC/24DC/10/SC	QUINT4-PS/ 24DC/24DC/20/SC	QUINT4-PS/ 24DC/24DC/20/SC/+
Order No.	1046800	1046803	1046805	1046881

	QUINT POWER, with 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 new	**24 V / 24 V / 10 A / CO** new
Type	QUINT4-PS/24DC/24DC/5/PT/CO	QUINT4-PS/24DC/24DC/10/PT/CO
Order No.	2910132	2910133

Plus version for extreme ambient conditions

The Plus version of the DC/DC converter with MOSFET integrated decoupling 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 SIL3 in conjunction with the QUINT4-S-ORING/12-24DC/1X40/+ redundancy module.

With a protective coating and ATEX and IECEx approval in accordance with the standards IEC 60079-0, IEC 60079-7, IEC 60079-11, and IEC 60079-15, it can also be used in zone 2 potentially explosive areas.

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 (CO stands for coated) protects against dust, corrosive gases, and 100% humidity. Failures due to creepage currents and electrochemical migration caused by corrosion are also prevented.

3rd generation QUINT POWER DC/DC converters

	QUINT POWER, with 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

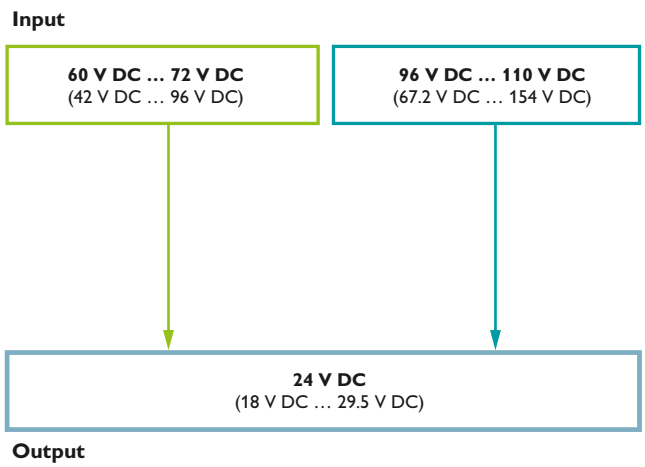
	60 V … 72 V / 24 V / 10 A	96 V … 110 V / 24 V / 10 A
Type	QUINT-PS/60-72DC/24DC/10	QUINT-PS/96-110DC/24DC/10
Order No.	2905009	2905010

	QUINT POWER, with 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
Order 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 rail industry and power generation, for example.



TRIO DC/DC converters
For decentral 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

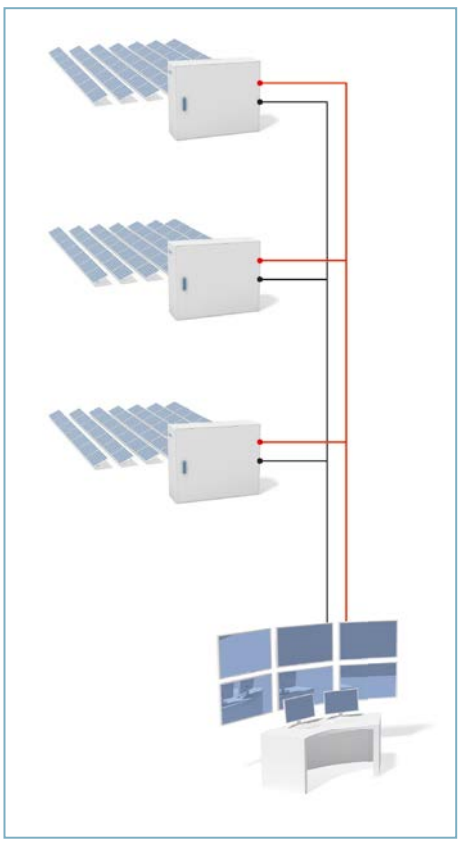
- Suitable for use in all photovoltaic systems with high input voltage due to conformity with standards UL 62109 and UL 1741
- High system availability with a robust design that ensures partial discharge resistance
- Direct, immediate supply from the solar field to supply the string monitoring function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

DC/DC converters for photovoltaic applications

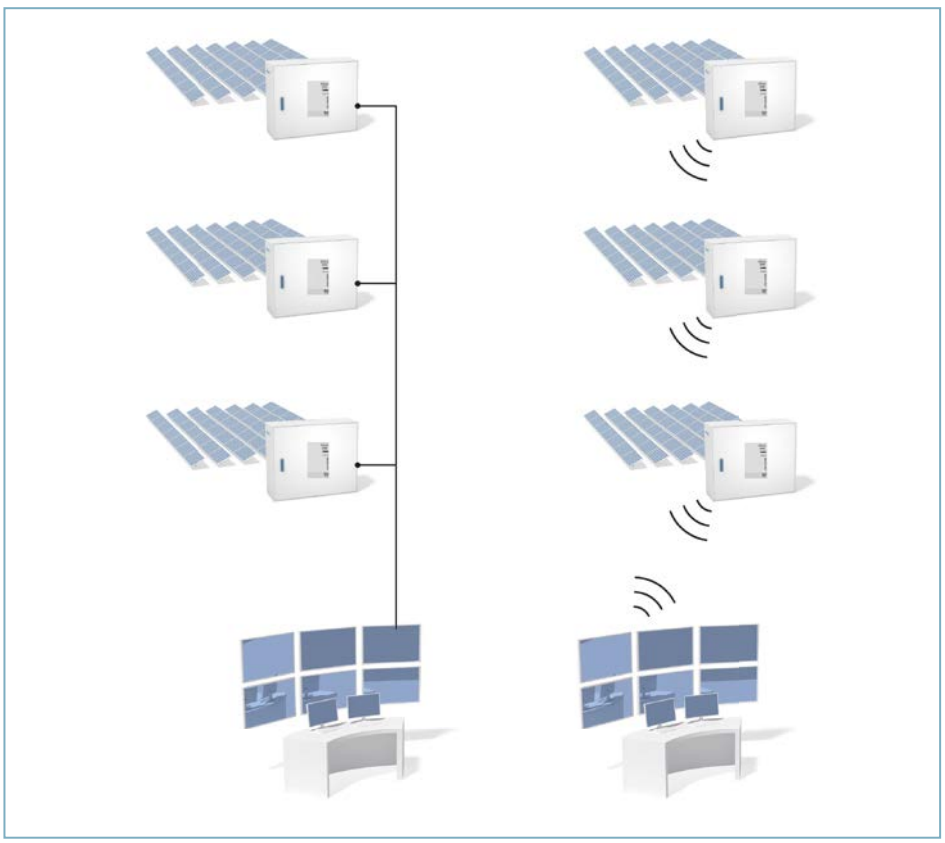
	TRIO POWER		UNO POWER
			
Input	450 V DC … 1,650 V DC	510 V DC … 1,650 V DC	300 V DC … 1,000 V DC
W x H x D in mm	48 x 130 x 121	88.5 x 130 x 160	55 x 90 x 84

	1,500 V / 24 V / 1.5 A new	1,500 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
Order 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 DC/DC converters for solar applications 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.

DC/DC converters and DC/AC inverters

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 switched 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

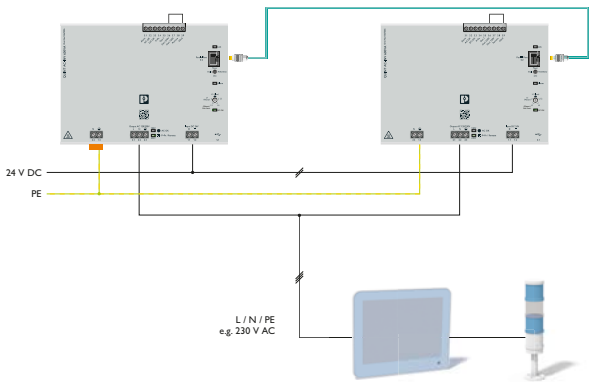
	480 W / 600 VA
Type	QUINT4-INV/24DC/1AC/600VA/USB
Order No.	1067325

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

	PORT-BRIDGE new
Type	RJ45-PORT-BRIDGE/3XPARALLEL
Order No.	1205351

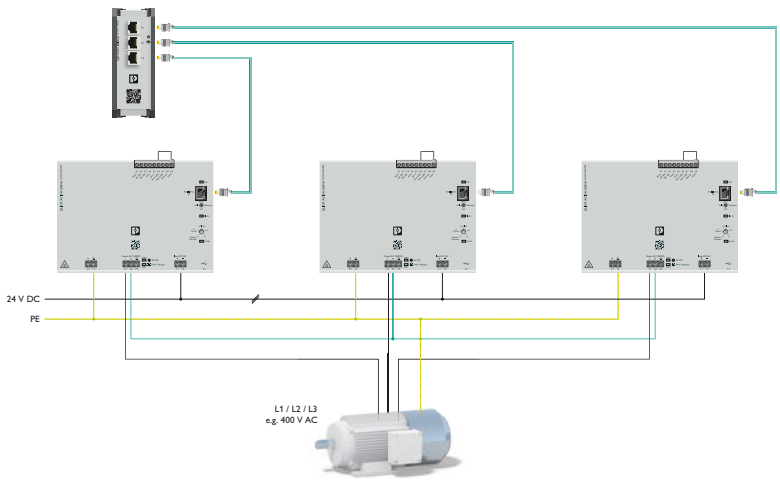
Parallel connection with synchronized AC output

You have the option to connect two devices in parallel. This increases the operational safety of your system 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 a 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 alternating current drives to be operated.



Redundancy modules
For maximum 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 42

QUINT DIODE

Ensures constant redundancy through redundant wiring up to the load with two positive output terminals

More information starting on page 46

Active and passive redundancy

Active redundancy
Our 1- or 2-channel active redundancy module versions monitor themselves and the connection wiring through to the load. In conjunction with a QUINT 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
Diodes enable simple decoupling of two power supplies on the DC side. This is useful in particular when power supplies are in parallel connection 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 46

UNO DIODE

Compact diode module for decoupling power supply units connected in parallel

More information starting on page 46

STEP DIODE

Diode module for little space in the control cabinet

More information starting on page 46

Redundancy modules

QUINT SINGLE-ORING
For consistent redundancy

With the QUINT S-ORING, you can increase your system availability and operational safety. Supply networks are decoupled and lines are disconnected continuously while they are routed to the load. In conjunction with the fourth generation of the QUINT POWER power supplies, the input voltage and decoupling section are monitored continuously.

Your advantages

- Consistent redundancy up to the load
- Constant monitoring of input voltage and decoupling section
- Energy savings of 70% by decoupling with MOSFET
- Protection against overvoltages at the output (overvoltage protection) 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 … 27.5 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	32 x 130 x 125

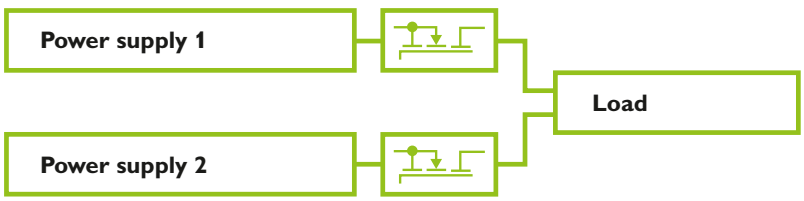
	U_{In} - 0.1 V / 1 x 40 A	U_{In} - 0.1 V / 1 x 40 A / VP*	U_{In} - 0.1 V / 1 x 40 A / +**
Type	QUINT4-S-ORING/12-24DC/1X40	QUINT4-S-ORING/12-24DC/1X40/VP	QUINT4-S-ORING/12-24DC/1X40/+
Order No.	2907752	1043418	2907753

*) Overvoltages arising are limited to 30 V, **) Overvoltages arising are limited to 28.8 V

Decoupling and monitoring

For the separate structuring of a redundant system, the QUINT S-ORING is well-suited to be an active, single-channel redundancy module.

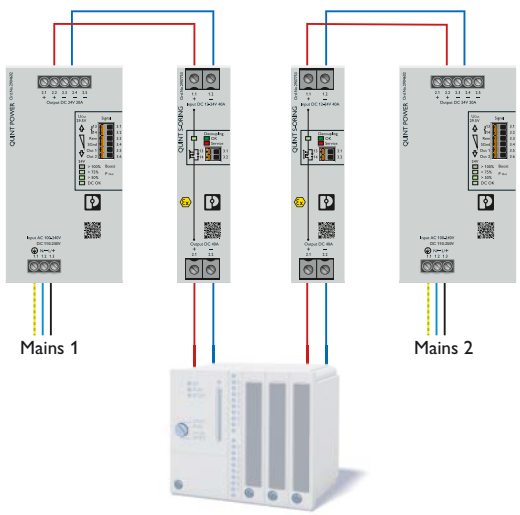
Combine the QUINT S-ORING with the 4th generation QUINT POWER power supply. You will have a fully monitored system that immediately reports critical operating states.



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 30 V DC or 28.8 V DC at the output.

The redundant system from the QUINT POWER power supply and the active redundancy module QUINT4-S-ORING/+ ensure 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).



QUINT ORING

Decoupling, monitoring, and control

The ACB (Auto Current Balancing) Technology of the QUINT ORING modules doubles the service life of redundantly operated power supplies by evenly utilizing the power supply units. In a system consisting of two QUINT POWER power supplies and one QUINT ORING, the input voltage, output current, and decoupling section are monitored continuously.

Your advantages

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

Active redundancy modules

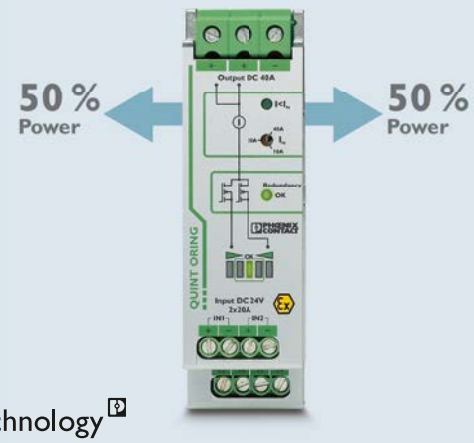
	QUINT ORING		Auto Current Balancing Technology Designed by PHOENIX CONTACT
			
Input	18 V DC … 28 V DC	18 V DC … 28 V DC	18 V DC … 28 V DC
W x H x D in mm	32 x 130 x 125	38 x 130 x 125	66 x 130 x 125

	U_{in} - 0.1 V / 2 x 10 A / 1 x 20 A	U_{in} - 0.2 V / 2 x 20 A / 1 x 40 A	U_{in} - 0.2 V / 2 x 40 A / 1 x 80 A
Type	QUINT-ORING/24DC/2X10/1X20	QUINT-ORING/24DC/2X20/1X40	QUINT-ORING/24DC/2X40/1X80
Order No.	2320173	2320186	2902879

QUINT ORING with ACB Technology (Auto Current Balancing)

ACB Technology extends the service life of redundantly operated power supplies by evenly utilizing the power supply units. 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.

Thanks to the use of modern MOSFET technology, the resulting thermal load is reduced by up to 70%. The lower level of power dissipation ensures that all the control cabinet components stay cooler and doubles the overall service life of the redundant system.

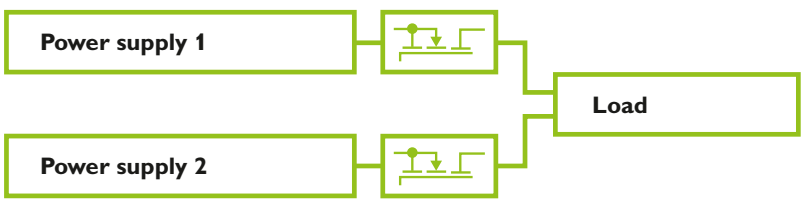


Auto Current Balancing Technology
Designed by PHOENIX CONTACT

Decoupling, monitoring, and control

The QUINT ORING ensures the decoupling of the power supplies and the constant monitoring of the input voltage and the output current. You will be warned at an early stage if there is any loss of redundancy.

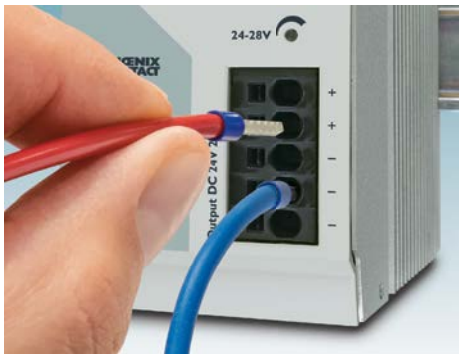
A system consisting of two QUINT POWER power supplies and a QUINT ORING ensures a maximum output voltage of 32 V DC even if two faults occur. It reliably protects loads against static surge voltages.



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 POWER and STEP POWER

Ideal diodes for decoupling small loads.

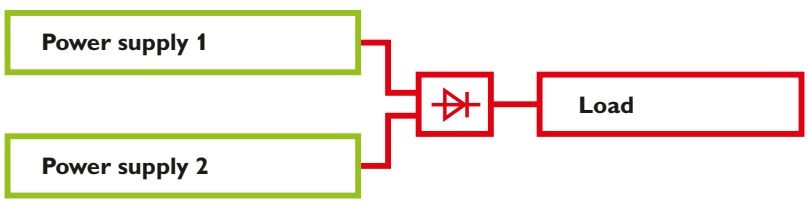
Redundancy modules for easy decoupling

Diode modules ensure 100% supply reliability, regardless of whether at the output of one of the power supply units or in the supply line from the power supply unit to the diode.

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, a short circuit at the output of one of the power supply units or in the supply line from the power supply unit to the diode no longer has any effect on the load.



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

	U_{in} - 0.5 V / 2 x 20 A / 1 x 40 A	U_{in} - 0.7 V / 2 x 20 A / 1 x 40 A
Type	QUINT4-DIODE/12-24DC/2X20/1X40	QUINT4-DIODE/48DC/2X20/1X40
Order 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

	U_{in} - 0.5 V / 2 x 10 A / 1 x 20 A	U_{in} - 0.5 V / 2 x 20 A / 1 x 40 A
Type	TRIO2-DIODE/12-24DC/2X10/1X20	TRIO2-DIODE/12-24DC/2X20/1X40
Order 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

	U_{in} - 0.5 V / 2 x 10 A / 1 x 20 A	U_{in} - 0.5 V / 2 x 5 A / 1 x 10 A
Type	UNO-DIODE/5-24DC/2X10/1X20	STEP-DIODE/5-24DC/2X5/1X10
Order No.	2905489	2868606

Uninterruptible power supplies
No problems during mains interruptions

4

Mains interruptions can have serious consequences. We provide the following solutions for high system availability, even if the mains fail:

- DC and AC UPS modules with communication interfaces
- UPS modules with integrated power supply or energy storage device
- Comprehensive selection of energy storage devices

QUINT UPS for DC applications

- With IQ technology
- For failures lasting up to several hours

More information starting on page 56

UPS for AC applications

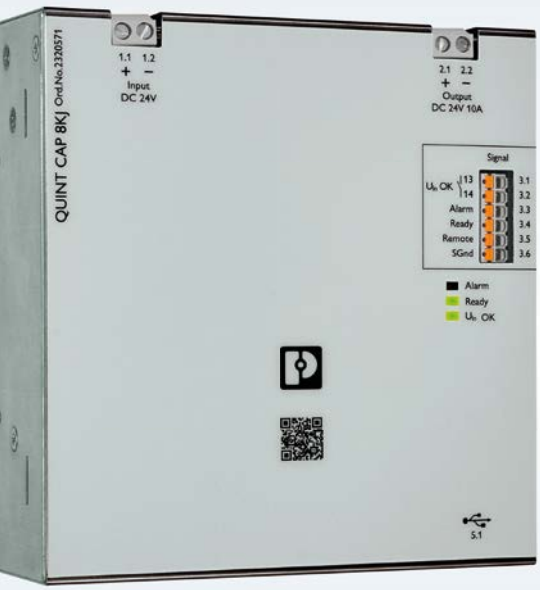
- QUINT AC UPS with IQ technology
- TRIO AC UPS with integrated energy storage

More information starting on page 62

UPS with integrated power supply

- For DC applications

More information starting on page 72



Buffer modules

- For DC applications
- With integrated energy storage

More information starting on page 66

Energy storage devices

- Different storage technologies for your requirements

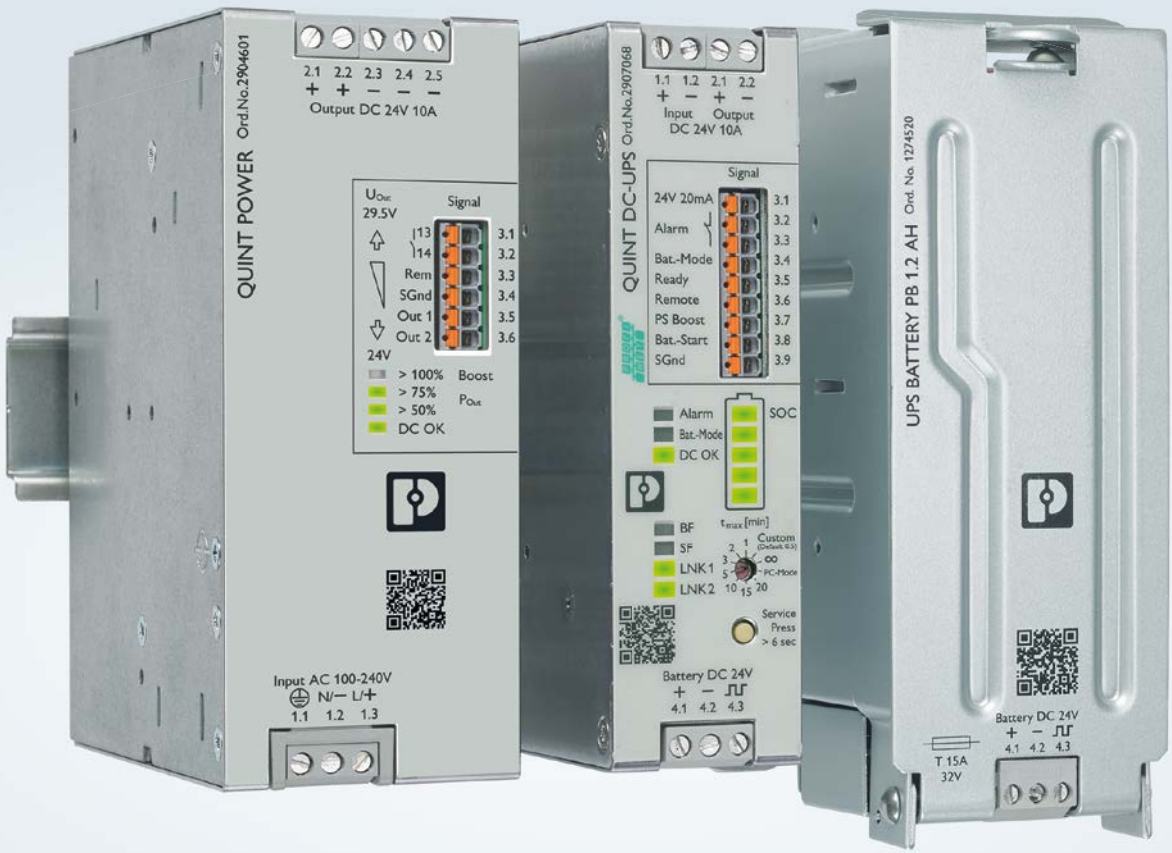
More information starting on page 54

Uninterruptible power supplies

Supply DC loads without mains
For risk-free system operation

Our uninterruptible power supplies for DC applications supply your application reliably even if the mains fails.

Select your DC UPS: intelligent with IQ technology or space-saving with integrated energy storage or integrated power supply.



UPS for DC loads

UPS module

Select your power supply, UPS module, and energy storage device.

Integrated energy storage

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

Integrated power supply

Space-saving solution – all you have to do is supplement the energy storage.

QUINT UPS
For DC applications

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

Monitor and optimize your energy storage 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 7)

Easy integration into industrial networks thanks to interfaces
- PROFINET
- EtherNet/IP™
- EtherCAT®
- USB

IQ Technology

Designed by PHOENIX CONTACT

Adaptive current management
- For fast recharging and high energy storage device availability

TRIO UPS with integrated power supply

The TRIO DC UPS with integrated power supply 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 energy storage is possible even without power supply input, thus simplifying the commissioning process. You can safeguard your system for up to several hours with the large selection of energy storage devices. With POWER MANAGEMENT SUITE software, you can optimally adapt the behavior of the UPS to your application.

Supplying AC loads without mains supply
For online and offline operation

Our uninterruptible power supplies for AC applications provide a pure sine curve at the output. The sine wave generated in battery operation is synchronized to the grid previously used for supply.

Select your AC UPS: intelligent with IQ technology or space-saving with integrated energy storage.

UPS for AC loads

QUINT AC UPS with integrated power supply

The clever IQ Technology in the QUINT UPS for AC applications monitors and optimizes the operation of your energy storage device. 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 expected life of the energy storage device. At the same time, the UPS detects the current performance of the energy storage device. The different energy storage types available allow the 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 seamless transition.

Convection cooling
- Fan-free heat dissipation

Comprehensive signaling and configuration
- Signal contacts

Startup from the energy storage device
- Possible even without power supply input

Can be switched in parallel
- For redundancy and increased performance

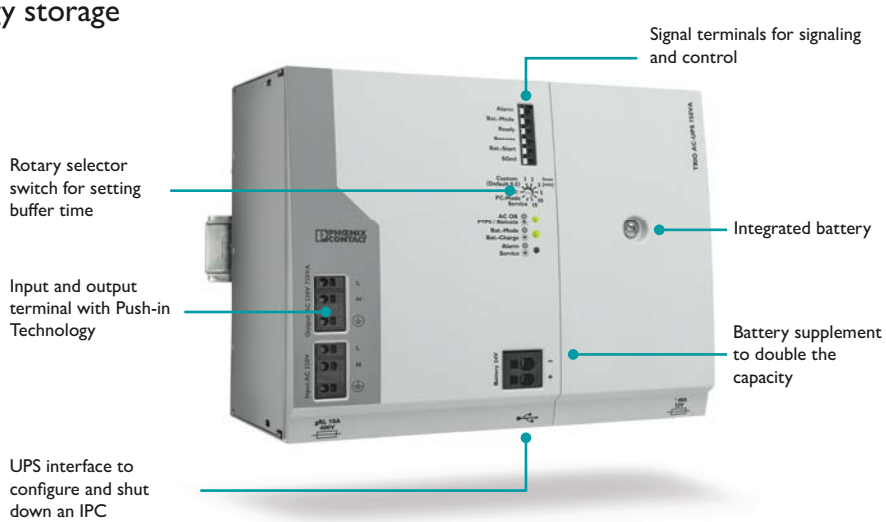
USB interface
- For connection to industrial PCs and controllers

Seamless transition with an online topology
- Classification in accordance with EN 62040-3: VFI-SS-111

Optimized use of buffer time and preventive monitoring of the energy storage device
- Intelligent battery management

TRIO AC UPS with integrated energy storage

The TRIO AC UPS with integrated energy storage saves space in your control cabinet. The UPS module and energy storage device are combined in one housing. This 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 seamless transition. The module can also be started without mains supply via the energy storage device.



Energy storage devices
For the optimal supply of your system

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

Technologies and advantages

UPS-BAT/LI-ION…

For a long service life with long buffer times
- Lithium iron phosphate technology

UPS-BAT/VRLA-WTR…

For longer buffer times at extreme temperatures.
- Valve Regulated Lead Acid

UPS-BAT/PB and VRLA

For long buffer times under normal conditions
- Valve Regulated Lead Acid

Intelligent energy storage for QUINT UPS

Choose among our various storage mediums. Do you need a longer service life or very long buffer times? Would you like energy storage that is maintenance-free, or would you like to use it in extreme ambient temperatures? Whatever your requirements, we have the right energy storage for you.

All energy storage devices also feature the following properties:
- Quick installation, thanks to automatic detection of the energy storage and tool-free replacement during operation
- Constant communication with QUINT UPS for continuous monitoring and intelligent management
- Extremely long service life with optimized charging characteristics based on the technology and ambient conditions
- Immediate availability, as all energy storage devices leave our warehouse fully charged

Type	Temperature	Service life at +20°C	Service life at +50°C	Charging cycles at +20°C	Weight standardized
UPS-BAT/LI-ION…	- 20°C … + 60°C	15 years	2 years	7,000	0.45 kg
UPS-BAT/VRLA-WTR…	-25°C … + 60°C	12 years	1.5 years	300	1.3 kg
UPS-BAT/PB… UPS-BAT/VRLA…	0°C … + 40°C	6 years … 10 years	1 year	250	1 kg

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 to 40 A enable you to create a custom solution consisting of a power supply, UPS module, and energy storage. With IQ Technology and a powerful battery charger, the battery management system (BMS) ensures superior system availability.

IQ Technology

Designed by PHOENIX CONTACT

PROFINET · Modbus · EtherNet/IP · USB · EtherCAT

Power supply · UPS module · Energy storage device

Your advantages

- Evaluation of the state of health (SOH) and state of charge (SOC), thanks to the intelligent battery management system (BMS)
- Automatic recognition of 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* IQ Technology Designed by PHOENIX CONTACT			
				
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
Order No.	2906993	2907068	2907073	2907079
	24 V / 5 A / EIP	**24 V / 10 A / EIP**	**24 V / 20 A / EIP**	**24 V / 40 A / EIP**
Type EtherNet/IP™	QUINT4-UPS/ 24DC/24DC/5/EIP	QUINT4-UPS/ 24DC/24DC/10/EIP	QUINT4-UPS/ 24DC/24DC/20/EIP	QUINT4-UPS/ 24DC/24DC/40/EIP
Order No.	2906994	2907069	2907074	2907080
	24 V / 5 A / EC	**24 V / 10 A / EC**	**24 V / 20 A / EC**	**24 V / 40 A / EC**
Type EtherCAT®	QUINT4-UPS/ 24DC/24DC/5/EC	QUINT4-UPS/ 24DC/24DC/10/EC	QUINT4-UPS/ 24DC/24DC/20/EC	QUINT4-UPS/ 24DC/24DC/40/EC
Order No.	2906996	2907070	2907076	2907081
	24 V / 5 A / USB	**24 V / 10 A / USB**	**24 V / 20 A / USB**	**24 V / 40 A / USB**
Type USB (Modbus/ RTU)	QUINT4-UPS/ 24DC/24DC/5/USB	QUINT4-UPS/ 24DC/24DC/10/USB	QUINT4-UPS/ 24DC/24DC/20/USB	QUINT4-UPS/ 24DC/24DC/40/USB
Order No.	2906991	2907067	2907072	2907078
	24 V / 5 A	**24 V / 10 A**	**24 V / 20 A**	**24 V / 40 A**
Type without interface	QUINT4-UPS/ 24DC/24DC/5	QUINT4-UPS/ 24DC/24DC/10	QUINT4-UPS/ 24DC/24DC/20	QUINT4-UPS/ 24DC/24DC/40
Order No.	2906990	2907066	2907071	2907077

*) These devices support SFB Technology.

QUINT CHARGER – charging rectifier for DIN rails

With the QUINT CHARGER, the additional charging device for QUINT DC UPS, both lead and lithium batteries can be charged more quickly. The temperature-optimized charging process increases the service life of the energy storage, while the higher charging current reduces the charging time.

The two devices communicate via Battery Control, the coordinated system for optimized battery charging. The charging parameters are configured via the USB interface. Battery status is indicated via LEDs and signal contacts.

	QUINT CHARGER SFB Technology Designed by Phoenix Contact
	
W x H x D in mm	60 x 130 x 126

	24 V / 10 A
Type	QUINT4-CHARGER/1AC/24DC/10
Order 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 energy storage, reduces maintenance effort, and increases your system availability.

It determines all relevant energy storage states. This ensures the crucial transparency required to guarantee supply stability and the best possible utilization of the energy storage devices at all times.

The intelligent battery management calculates the remaining runtime available. It advises 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 energy storage device is detected automatically. The optimally adjusted charging characteristic maximizes the service life of the energy storage device. Adapting the charging current ensures the quickest possible recharging and availability of the energy storage device.

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

Intelligent battery management SOH (State of Health)
Reports on the life remaining for the energy storage device and provides early warning of failures.

Intelligent battery management SOC (State of Charge)
Describes the current state of charge and the remaining energy storage device runtime.

Intelligent battery control
Detects the connected battery type and extends its remaining service life by optimally adapting the charging characteristic.

Interfaces
Easy integration into industrial networks:
- PROFINET
- EtherNet/IP™
- EtherCAT®
- USB

IQ Technology
Designed by PHOENIX CONTACT

QUINT DC UPS – intelligent and communicative

POWER MANAGEMENT SUITE – configuration and management software

You can monitor and configure several power supplies and UPS systems simultaneously with the new software. It supports all devices with USB or EtherNet/IP™ interfaces. The software is available for you to download free of charge for QUINT4 and TRIO 2G devices.

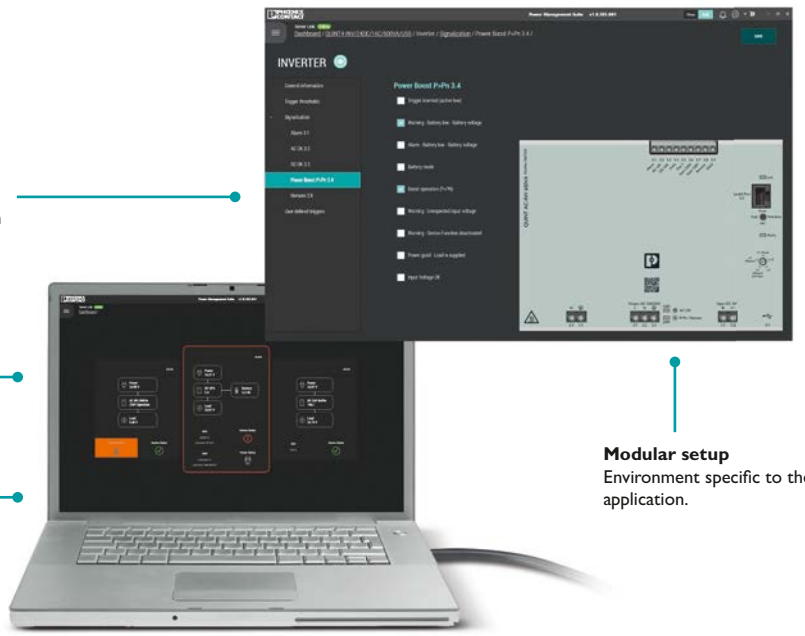
Integrated system monitoring
Monitor several power supplies and UPS systems from different PCs.

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 at all times.

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

Modular setup
Environment specific to the application.



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

With the intelligent QUINT DC UPS for integration into existing industrial networks, you are ready for Industry 4.0. The system can be monitored, configured, or shut down in a safe state at any time, regardless of location, thanks to the integrated interfaces.

Interfaces
The QUINT DC UPS can be easily integrated into the following existing industrial networks via various interfaces:
- PROFINET
- EtherNet/IP™
- EtherCAT®

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

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

Extended load management
The extended load management system consists of the following functions:
- Energy monitoring: Monitoring input and output voltages and the associated currents
- PC shutdown function: Reliable shutdown of your industrial PC in the event of a mains failure without data loss, and automatic restart of the industrial PC when the mains power returns
- Cold-start function: UPS startup 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.

Selection guide for QUINT DC UPS and energy storage devices

Select the appropriate combination of QUINT DC UPS and energy storage device here.

QUINT DC UPS with integrated interface for integration into existing industrial networks.

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

Power supply | UPS module | Energy storage devices

	UPS-BAT/LI-ION		UPS-BAT/VRLA-WTR	
				
W x H x D in mm	135 x 202 x 110	264 x 224 x 197	172 x 177 x 178	358 x 174 x 169

	120 Wh	924 Wh	13 Ah	26 Ah
Type	UPS-BAT/LI-ION/ 24DC/120WH	UPS-BAT/LI-ION/ 24DC/924WH	UPS-BAT/VRLA-WTR/ 24DC/13AH	UPS-BAT/VRLA-WTR/ 24DC/26AH
Order No.	2320351	2908232	2320416	2320429

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

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

→ ▭

→ QUINT4-UPS/24DC/24DC/20A and UPS-BAT/LI-ION/24DC/120WH

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

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

	QUINT UPS*			IQ Technology Designed by PHOENIX CONTACT	...with dual output
					
W x H x D in mm	35 x 130 x 125	35 x 130 x 125	40 x 130 x 125	47 x 130 x 125	35 x 130 x 125

	24 V / 5 A	24 V / 10 A	24 V / 20 A	24 V / 40 A	12 V / 5 A / 24 V / 10 A
Type	QUINT4-UPS/24DC/24DC/5…	QUINT4-UPS/24DC/24DC/10…	QUINT4-UPS/24DC/24DC/20…	QUINT4-UPS/24DC/24DC/40…	QUINT-UPS/24DC/12DC/5/24DC/10
Recommended energy storage UPS-BAT/...	LI-ION VRLA-WTR PB/VRLA (1.2 Ah … 38 Ah) (max. 40 Ah)	LI-ION VRLA-WTR PB/VRLA (1.2 Ah … 38 Ah) (max. 80 Ah)	LI-ION VRLA-WTR PB/VRLA (4 Ah … 38 Ah) (max. 100 Ah)	LI-ION 924WH VRLA-WTR PB/VRLA (7 Ah … 38 Ah) (max. 100 Ah)	LI-ION VRLA-WTR PB/VRLA (1.2 Ah … 38 Ah) (max. 60 Ah)

*) These devices support SFB Technology.

	UPS-BAT/PB				UPS-BAT/VRLA	
						
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	152 x 167 x 181	330 x 221 x 197

	1.2 Ah	4 Ah	7 Ah	12 Ah	20 Ah	38 Ah
Type	UPS-BAT/PB/24DC/1.2AH	UPS-BAT/PB/24DC/4AH	UPS-BAT/PB/24DC/7AH	UPS-BAT/PB/24DC/12AH	UPS-BAT/VRLA/24DC/20AH	UPS-BAT/VRLA/24DC/38AH
Order No.	1274520	1274117	1274118	1274119	1109004	2320335

Buffer times for your QUINT DC UPS with the following energy storage devices: PB and VRLA

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

→ ■

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

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

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

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

Select the appropriate combination of QUINT AC UPS/500VA and energy storage device here.

With the new QUINT AC UPS, you can also reliably protect smaller loads up to 500 VA.

Only one energy storage device is required to safeguard your system.

Power supply UPS module Energy storage devices

	UPS-BAT/LI-ION		UPS-BAT/VRLA-WTR	
				
W x H x D in mm	135 x 202 x 110	264 x 224 x 197	172 x 177 x 178	358 x 174 x 169

	120 Wh	924 Wh	13 Ah	26 Ah
Type	UPS-BAT/LI-ION/ 24DC/120WH	UPS-BAT/LI-ION/ 24DC/924WH	UPS-BAT/VRLA-WTR/ 24DC/13AH	UPS-BAT/VRLA-WTR/ 24DC/26AH
Order No.	2320351	2908232	2320416	2320429

Buffer times for your QUINT AC UPS/500VA with the following energy storage devices: LI-ION, and VRLA-WTR

Select your energy storage device for your QUINT AC UPS/500VA (120 / 230 V application) here. Example: 125 W is to be buffered for one hour.

→ ■

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

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

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

	QUINT 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
Order No.	1067327
Recommended energy storage device UPS-BAT/…	LI-ION VRLA-WTR PB/VRLA (4 Ah … 38 Ah)

	UPS-BAT/PB			UPS-BAT/VRLA	
					
W x H x D in mm	85 x 191 x 110	135 x 202 x 110	202 x 202 x 110	152 x 167 x 181	330 x 221 x 197

	4 Ah	7 Ah	12 Ah	20 Ah	38 Ah
Type	UPS-BAT/PB/ 24DC/4AH	UPS-BAT/PB/ 24DC/7AH	UPS-BAT/PB/ 24DC/12AH	UPS-BAT/VRLA/ 24DC/20AH	UPS-BAT/VRLA/ 24DC/38AH
Order No.	1274117	1274118	1274119	1109004	2320335

Buffer times for QUINT AC UPS/500VA with the following energy storage devices: PB and VRLA

Select your energy storage device for your QUINT AC UPS/500VA (120 / 230 V application) here. Example: 125 W is to be buffered for one hour.

→ ■

→ QUINT4-UPS/1AC/1AC/500VA/USB and UPS-BAT/VRLA/24DC/20AH

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

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

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

Select the appropriate combination of QUINT AC UPS/1kVA and energy storage device here.

With the new QUINT AC UPS, you can also reliably protect large loads up to 1 kVA.

Only one energy storage device is required to safeguard your system.

Power supply UPS module Energy storage devices

	UPS-BAT/LI-ION		UPS-BAT/VRLA-WTR	
				
W x H x D in mm	135 x 202 x 110	264 x 224 x 197	172 x 177 x 178	358 x 174 x 169

	120 Wh	924 Wh	13 Ah	26 Ah
Type	UPS-BAT/LI-ION/ 24DC/120WH	UPS-BAT/LI-ION/ 24DC/924WH	UPS-BAT/VRLA-WTR/ 24DC/13AH	UPS-BAT/VRLA-WTR/ 24DC/26AH
Order No.	2320351	2908232	2320416	2320429

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

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

→ ▭

→ QUINT4-UPS/1AC/1AC/1KVA and 2 x UPS-BAT/LI-ION/24DC/924WH

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

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

	QUINT UPS, 1~ IQ Technology Designed by PHOENIX CONTACT
	
W x H x D in mm	290 x 130 x 125

	900 W / 1,000 VA / USB
Type	QUINT4-UPS/1AC/1AC/1KVA
Order No.	2320283
Recommended energy storage device UPS-BAT/…	LI-ION VRLA-WTR PB/VRLA (4 Ah … 38 Ah)

	UPS-BAT/PB			UPS-BAT/VRLA	
					
W x H x D in mm	85 x 191 x 110	135 x 202 x 110	202 x 202 x 110	152 x 167 x 181	330 x 221 x 197

	4 Ah	7 Ah	12 Ah	20 Ah	38 Ah
Type	UPS-BAT/PB/ 24DC/4AH	UPS-BAT/PB/ 24DC/7AH	UPS-BAT/PB/ 24DC/12AH	UPS-BAT/VRLA/ 24DC/20AH	UPS-BAT/VRLA/ 24DC/38AH
Order No.	1274117	1274118	1274119	1109004	2320335

Buffer times for your QUINT AC UPS/1kVA with the following energy storage devices: PB and VRLA

Select your energy storage device for your QUINT AC UPS/1kVA (120 /230 V application) here. Example: 400 W needs to be buffered for 50 minutes:

→ ■

→ QUINT4-UPS/1AC/1AC/1KVA and 2 x UPS-BAT/PB/24DC/12AH

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

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

Maintenance-free buffer modules Intelligent protection in the event of mains failures

The new QUINT CAP buffer modules with integrated interface can be integrated easily into industrial networks. The buffer modules bridge cyclic failures of up to several minutes and combine an electronic switchover unit and energy storage device in one housing.

Your advantages

- Easy integration into industrial networks with freely selectable interface: PROFINET, EtherNet/IP™/ Modbus/TCP, and USB
- Long service life with maintenance-free double-layer capacitors
- Reliable startup of difficult loads with static boost
- Comprehensive signaling: Preventive function monitoring reports critical operating states before errors occur
- Extension of the buffer time with parallel connection of up to four devices

Power supply UPS module Energy storage devices

Selection guide for QUINT CAP modules with integrated energy storage device

	QUINT CAP*		
		 USB	 USB
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
Order No.	2320526	2320539	2320571
Information	Energy storage device based on maintenance-free double-layer capacitors		

	QUINT CAP, interface*		
			
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	244 x 130 x 125	244 x 130 x 125	244 x 130 x 125

	24 V / 20 A / USB new	24 V / 20 A / PN new	24 V / 20 A / EIP new
Type	QUINT4-CAP/24DC/20/16KJ/USB	QUINT4-CAP/24DC/20/16KJ/PN	QUINT4-CAP/24DC/20/16KJ/EIP
Order No.	1065635	1076860	1076861
Information	Energy storage device based on maintenance-free double-layer capacitors		

*) These devices support SFB Technology.

Buffer times for QUINT CAP

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

→ ▭
→ QUINT4-CAP/24DC/10/8KJ

Load current	Buffer time: 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																	
10.00 A																	
12.50 A																	
15.00 A																	
20.00 A																	
25.00 A																	

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

Selection guide for QUINT BUFFER with integrated energy storage device

The compact QUINT buffer module bridges failures within seconds. It combines an electronic switchover unit and an energy storage device in one housing. The capacity module stores the energy required to bridge mains failures in maintenance-free electrolytic capacitors.

- Maximum energy efficiency
- High system availability due to long capacitor service life
- Wide temperature range -40°C to +70°C
- Static boost for starting up difficult loads
- Integrated "soft start" for limiting the inrush current and preventing power supply unit overload
- Comprehensive signaling on the device (LEDs and signal terminals)
- Reliability and safety with integrated safety functions

	QUINT BUFFER*	
		
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
Order No.	2907913	2908283
Information	Energy storage device based on maintenance-free electrolytic capacitors	

*) These devices support SFB Technology.

Buffer times for QUINT BUFFER

Example: 3 A is to be buffered for 2 seconds.

QUINT4-BUFFER/24DC/40

Power	Buffer time: Seconds 0.2	0.4	0.5	1	1.5	2	4	6	8	16	30	Minutes 1	2	3
0.5 A								■	■					
1 A								■						
2 A							■	■						
3 A						■	■							
5 A					■									
7 A				■										
10 A				■										
20 A		■	■											
30 A	■	■												
40 A	■													

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

Selection guide for QUINT DC UPS modules with integrated energy storage device

The QUINT DC UPS is extremely 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 energy storage devices have exceeded their service life, they can be quickly and easily replaced.

- IQ Technology: Based on the ambient temperature, the UPS will calculate the optimal charging currents and, in the process, increase the service life of the energy storage device
- Minimal wiring effort
- Maintenance-free energy storage device with lead AGM technology

Power supply UPS module Energy storage devices

	QUINT UPS*	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 / 1.3 Ah	24 V / 10 A / 3.4 Ah
Type	QUINT-UPS/24DC/24DC/5/1.3AH	QUINT-UPS/24DC/24DC/10/3.4AH
Order No.	2320254	2320267
Energy storage devices	Lead AGM technology	Lead AGM technology
Information	Integrated temperature sensor optimizes charging currents, thereby increasing the service life	

*) These devices support SFB Technology.

Buffer times for QUINT UPS

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

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

Power	Buffer time: Seconds 1.5	2	4	6	8	16	30	Minutes 1	2	3	5	6	7	8	9	10	15	20	25	30	40	45	50	Hours 1	2	3
0.5 A																										
1 A																										
2 A																										
3 A																										
5 A																										
7 A																										
10 A																										
20 A																										
30 A																										
40 A																										

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

Selection guide for TRIO AC UPS modules with integrated energy storage device

The TRIO AC UPS with Push-in Technology for DIN rails saves space and reliably supplies your AC loads.

The UPS module delivers a pure sine curve at the output. The sine wave generated in battery operation is synchronized to the grid previously used for supply.

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

Power supply UPS module Energy storage devices

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

	230 V / 750 VA	120 V / 750 VA
Type	TRIO-UPS-2G/1AC/1AC/230V/750VA	TRIO-UPS-2G/1AC/1AC/120V/750VA
Order No.	2905909	2905908
Information	Energy storage device with lead AGM technology	Energy storage device with lead AGM technology

Buffer times for TRIO AC UPS

1+1: An additional energy storage device of the same capacity (4 Ah) of type UPS-BAT/PB/24DC/4AH (1274117) is required in this case.

	Buffer time													
	Minutes												Hours	
Power	1	1.5	2	4	6	8	10	15	20	30	40	50	1	1.5
50 W												1+1	1+1	1+1
100 W										1+1	1+1	1+1		
150 W								1+1	1+1	1+1				
200 W							1+1	1+1	1+1					
250 W						1+1	1+1	1+1						
300 W					1+1	1+1	1+1							
400 W				1+1	1+1	1+1								
500 W			1+1	1+1	1+1									
600 W		1+1	1+1	1+1										

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

Selection guide for UPS modules with integrated energy storage devices

UNO DC UPS
Harmonized with the UNO POWER power supply range, the UNO UPS with 60 W output power is available. The uninterruptible power supply operates flexibly at input voltages ranging from 23V DC to 30 V DC. The integrated lead AGM energy storage device ensures long buffer times of up to 45 minutes.

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 V DC to 29.5 V DC. For 24 V, the integrated lithium-ion energy storage device ensures long buffer times of up to 90 minutes.

The 12 V version operates at input voltages ranging from 10 V DC to 16.5 V DC. The output current is buffered for up to 45 minutes.

	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 / 60 W	24 V / 3 A / 46 Wh	12 V / 4 A / 46 Wh
Type	UNO-UPS/24DC/24DC/60W	STEP-UPS/24DC/24DC/3/46WH	STEP-UPS/12DC/12DC/4/46WH
Order No.	2905907	1081430	1082548
Energy storage devices	Lead AGM technology	Lithium-ion technology	Lithium-ion technology

Buffer times for UNO UPS and STEP UPS

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

→ ▭
→ STEP-UPS/24DC/24DC/3A/46WH

Load current	Buffer time: Seconds 0.2	0.4	1	2	8	16	30	Minutes 1	2	3	5	6	7	8	9	10	15	20	25	30	40	45	50	Hours 1	1.5	2	3
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 +20°C.

Selection guide for UPS modules with integrated power supply

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

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

Power supply UPS module Energy storage devices

	MINI UPS, 1~	
		
Input	85 V AC … 264 V AC 100 V DC … 350 V DC	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

	24 V / 2 A	12 V / 4 A
Type	MINI-DC-UPS/24DC/2	MINI-DC-UPS/12DC/4
Order No.	2866640	2866598

	MINI-BAT for MINI UPS	
		
Energy storage devices	Lead AGM technology	Lead AGM technology
W x H x D in mm	67.5 x 99 x 107	52 x 130 x 110

	24 V / 0.8 Ah	24 V / 1.3 Ah
Type	MINI-BAT/24DC/0.8AH	MINI-BAT/24DC/1.3AH
Order No.	2866666	2866417
	12 V / 1.6 Ah	**12 V / 2.6 Ah**
Type	MINI-BAT/12DC/1.6AH	MINI-BAT/12DC/2.6AH
Order No.	2866572 2x	2866569 2x

Buffer times for MINI DC UPS

Select your MINI BAT for your MINI UPS here. Example: 1 A is to be buffered for 20 minutes.

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

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

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

	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	3x 320 V AC … 575 V AC 2x 360 V AC … 550 V AC
W x H x D in mm	60 x 130 x 115	68 x 130 x 160	88 x 130 x 160

	24 V / 5 A	24 V / 10 A	24 V / 20 A
Type	TRIO-UPS-2G/1AC/24DC/5	TRIO-UPS-2G/1AC/24DC/10	TRIO-UPS-2G/3AC/24DC/20
Order No.	2907160	2907161	2906367

	UPS-BAT/PB				UPS-BAT/VRLA	
						
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	152 x 167 x 181	330 x 221 x 197

	1.2 Ah	4 Ah	7 Ah	12 Ah	20 Ah	38 Ah
Type	UPS-BAT/PB/ 24DC/1.2AH	UPS-BAT/PB/ 24DC/4AH	UPS-BAT/PB/ 24DC/7AH	UPS-BAT/PB/ 24DC/12AH	UPS-BAT/VRLA/ 24DC/20AH	UPS-BAT/VRLA/ 24DC/38AH
Order No.	1274520	1274117	1274118	1274119	1109004	2320335

Buffer times for TRIO DC UPS with the following energy storage devices: PB and VRLA

Select your energy storage device for your TRIO DC UPS here. Example: 10 A is to be buffered for 10 minutes.

TRIO-UPS-2G/1AC/24DC/10 and UPS-BAT/PB/24DC/4AH

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

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

Accessories product overview

	Mounting on level surfaces	
		
	Adapter UWA 182/52	**Adapter UWA 130**
Order No.	2938235	2901664
Description	For: QUINT-PS QUINT4-PS QUINT-UPS QUINT4-UPS/24DC/24DC/... 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

	Programming adapters	Fans
		
	TWN4 MIFARE NFC USB ADAPTER	**Fan for QUINT, QUINT-PS/FAN/4**
Order No.	2909681	2320076
Description	• Programming adapter for near field communication (NFC) • With USB interface • For wireless configuration of NFC-capable QUINT POWER power supplies	• In the standard power supply mounting position, the temperature range increases by 10 K (max. ambient temperature of +70°C) • When the mounting position is rotated, position-dependent derating no longer applies • Tool-free mounting

Accessories product overview

	Accessories for 4th generation QUINT UPS and 2nd generation TRIO UPS				
					
	Software new	**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
Order No.	1252232	2908217	1408933	1408968	1031235
Type			Network cable - NBC-R4AC/2,0-93E/R4AC	Patch cable - NBC-R4AC/2,0-93B/R4AC	
Order No.			1408934	1408969	
Type			Network cable - NBC-R4AC/5,0-93E/R4AC	Patch cable - NBC-R4AC/5,0-93B/R4AC	
Order No.			1408935	1408970	
Type			Network cable - NBC-R4RC/10,0-94B/R4RC	Patch cable - NBC-R4AC/5,0-93B/R4AC	
Order 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
Order No.	2320403	2320500	2986122	2313452
Type		IFS-BT-PROG-ADAPTER	IFS-CONFSTICK-L	
Order No.		2905872	2901103	
Type		IFS-RS232-DATACABLE		
Order No.		2320490		
Type		IFS-OPEN-END-DATACABLE		
Order No.		2320450		
Type		IFS-MINI-DIN-DATACABLE		
Order No.		2320487		

Accessories product overview

	Energy storage device mounting		
			
	BATTERY MOUNTING KIT	**BATTERY MOUNTING CASE**	**BATTERY MOUNTING CASE**
Order No.	2320788	1134645	2320458
Information	For: UPS-BAT/VRLA/24DC/20AH UPS-BAT/VRLA/24DC/38AH UPS-BAT/VRLA-WTR/24DC/13AH UPS-BAT/VRLA-WTR/24DC/26AH UPS-BAT/LI-ION/24DC/924WH	For: UPS-BAT/VRLA/24DC/20AH UPS-BAT/VRLA-WTR/24DC/13AH	For: UPS-BAT/LI-ION/24DC/924WH UPS-BAT/VRLA-WTR/24DC/26AH UPS-BAT/VRLA/24DC/38AH

	Replacement batteries for UPS-BAT/PB and VRLA		Replacement batteries for UPS-BAT/VRLA/WTR	Replacement batteries for UPS-BAT/LI-ION
				
	BAT-KIT 2x12/1,2AH	**BAT-KIT 2x12V/38AH**	**BAT-KIT-WTR 2x12V/13AH**	**BAT-KIT 2x12**
Order No.	1283114	2908237	2908368	2908370
	BAT-KIT 2x12/4H	**BAT-KIT 2x12/20AH**	**BAT-KIT-WTR 2x12V/26AH**	
Order No.	1283116	1185595	2908369	
	BAT-KIT 2x12/7AH			
Order No.	1283119			
	BAT-KIT 2x12/12AH			
Order No.	1283121			

Accessories product overview

	Fuses for AC UPS		
			
	FUSE 40 A/32 V ATOF	**FUSE 10 A/400 V GRL**	**FUSE 25 A/58 V TAC ATO**
Order 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 energy storage		
			
	FUSE 15 A/32 V FK1	**FUSE 25 A/32 V ATOF**	**FUSE 30 A/32 V ATOF**
Order No.	2908360	2908366	2908365
Information	For: UPS-BAT/VRLA/24DC/1.3AH UPS-BAT/PB/24DC/1.2A	For: UPS-BAT/PB/24DC/4AH UPS-BAT/PB/24DC/7AH UPS-BAT/PB/24DC/12AH UPS-BAT/VRLA/24DC/20AH UPS-BAT/VRLA/24DC/38AH UPS-BAT/VRLA-WTR/24DC/13AH UPS-BAT/VRLA-WTR/24DC/26AH UPS-BAT/LI-ION/24DC/924WH MINI-BAT/12DC/2.6AH	For: UPS-BAT/LI-ION/24DC/120WH

	Fuses for energy storage		
			
	FUSE 5 A/32 V FK1	**FUSE 15 A/32 V FKS**	**FUSE 10 A/32 V FK1**
Order No.	1104162	2908361	2908364
Information	For: UNO-UPS/24DC/24DC/60W MINI-BAT/24DC/0.8AH	For: MINI-BAT/24DC/1.3AH QUINT-UPS/24DC/24DC/5/1.3AH QUINT-UPS/24DC/24DC/10/3.4AH	For: MINI-BAT/12DC/1.6AH

Approvals for QUINT POWER

		UL						CSA		Ship						Ex										
		CE	UL/C-UL listed 61010	UL listed UL 508	UL/C-UL listed UL 508	UL/C-UL recognized UL 60950	UL listed ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D	UL 1310 NEC Class 2	CSA 22.2 No 107.1-01 CSA 22.2 No 60950-1-07	CSA 22.2 No 61010-1 CSA 22.2 No 61010-2-201	DNV GL Group	ABS American Bureau of Shipping	BV Bureau Veritas	LR Lloyd's Register	NK Nippon Kaiji Kyokai	RINA	ATEX/IECEx	EAC-Ex	DeviceNet™	SEMI F47-0706 Compliance	CB Scheme	Med. standard IEC 60601, 2 x MOOP	EN 50121-4, -5, -3-2	EAC	Startup at -40°C	Installation altitude
QUINT POWER power supplies with SFB Technology																										
QUINT4-PS/1AC/24DC/5	2904600	•			•	•	•		•		•	•	•	•	•					•	•		•	•	•	c
QUINT4-PS/1AC/24DC/10	2904601	•			•	•	•		•		•	•	•	•	•					•	•		•	•	•	c
QUINT4-PS/1AC/24DC/20	2904602	•			•	•	•		•		•	•	•	•	•					•	•		•	•	•	c
QUINT4-PS/1AC/24DC/20/+	2904617	•			•	•	•		•		•	•	•	•	•		•	•		•	•		•	•	•	c
QUINT4-PS/1AC/24DC/40	2904603	•			•	•	•		•		•	*	*	*	•					•	•		•	•	•	c
QUINT-PS/1AC/24DC/3.5	2866747	•		•		•	•		•		•	•	•	•	•	•			•	•	•	•		•		c
QUINT4-PS/1AC/12DC/15	2904608	•			•	•	•		•		•	•	•	•	•					•	•		•	•	•	c
QUINT-PS/1AC/12DC/20	2866721	•		•		•	•		•											•	•	•	•	•	•	d
QUINT4-PS/1AC/48DC/5	2904610	•			•	•	•		•		•	•	•	•	•					•	•		•	•	•	c
QUINT4-PS/1AC/48DC/10	2904611	•			•	•	•		•		•	•	•	•	•					•	•		•	•	•	c
QUINT4-PS/1AC/48DC/20	2904612	•		•		•	•		•		*	*	*	*							•		•	•	•	c
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	•		•		•	•		•		*	*	*	*							•		•	•	•	c
QUINT4-PS/1AC/110DC/4	2904613	•	•			•	•			•	•	*	*	*	•					•	•		•	•	•	b
QUINT4-PS/1AC/24DC/10/CO	2904625	•			•	•	•		•		•	•	•	•	•					•	•		•	•	•	c
QUINT4-PS/1AC/48DC/10/CO	2904626	•			•	•	•		•		•	•	•	•	•					•	•		•	•	•	c
QUINT-PS/1AC/24DC/5/CO	2320908	•		•		•	•		•		•						•	•	•	•	•	•	•	•	•	d
QUINT-PS/1AC/24DC/10/CO	2320911	•		•		•	•		•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	c
QUINT-PS/1AC/24DC/20/CO	2320898	•		•		•	•		•		•						•	•	•	•	•	•	•	•	•	d
QUINT-PS/3AC/24DC/20/CO	2320924	•		•		•	•		•		•									•	•		•	•	•	c
QUINT POWER power supplies <100 W																										
QUINT4-PS 1AC/24DC/1.3/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/5DC/5/PT	2904595	•	•				•	•			•									•	•		•	•	•	c
QUINT4-PS 1AC/12DC/2.5/PT	2904605	•	•				•	•			•									•	•		•	•		c
QUINT4-PS 1AC/12DC/7.5/PT	2904607	•	•				•				•									•	•		•	•	•	c

* 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 TRIO POWER

		UL						CSA		Ship						Ex										
		CE	UL/C-UL listed 61010	UL listed UL 508	UL/C-UL listed UL 508	UL/C-UL recognized UL 60950	UL listed ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D	UL 1310 NEC Class 2	CSA 22.2 No 107.1-01	cCSAus 61010-2-201	DNV GL Group	ABS American Bureau of Shipping	BV Bureau Veritas	LR Lloyd's Register	NK Nippon Kaiji Kyokai	RINA	ATEX	IECEx	DeviceNet™	SEMI F47-0706 Compliance	CB Scheme	Med. standard IEC 60601, 2 x MOOP	Railway standard EN 50155	EAC	Startup at -40°C	Installation altitude
TRIO POWER power supplies																										
TRIO-PS-2G/1AC/24DC/3/C2LPS	2903147	•			•	•	•	•			•									*	•			•		c
TRIO-PS-2G/1AC/24DC/5	2903148	•			•	•	•				•									*	•			•		c
TRIO-PS-2G/1AC/24DC/5/B+D	2903144	•			•	•					•										•			•		c
TRIO-PS-2G/1AC/24DC/10	2903149	•			•	•	•				•									*	•			•	•	c
TRIO-PS-2G/1AC/24DC/10/B+D	2903145	•			•	•					•										•			•		c
TRIO-PS-2G/1AC/24DC/20	2903151	•			•	•	•				•									*	•			•	•	b
TRIO-PS-2G/1AC/12DC/5/C2LPS	2903157	•			•	•	•	•													•			•		c
TRIO-PS-2G/1AC/12DC/10	2903158	•			•	•	•														•			•		c
TRIO-PS-2G/1AC/48DC/5	2903159	•			•	•	•														•			•		c
TRIO-PS-2G/1AC/48DC/10	2903160	•			•	•	•														•			•		c
TRIO-PS-2G/3AC/24DC/5	2903153	•			•	•	•				•										•			•		c
TRIO-PS-2G/3AC/24DC/10	2903154	•			•	•	•				•										•			•	•	c
TRIO-PS-2G/3AC/24DC/20	2903155	•			•	•	•				•										•			•	•	c
TRIO-PS-2G/3AC/24DC/40	2903156	•			•	•	•														•			•		b
TRIO-PS-2G/3AC/72DC/14	1076188	•	•																							b
TRIO POWER IP67 power supplies																										
TRIO-PS67/1AC/24DC/8/INC	1065976	•	•																		•			•		b
TRIO-PS67/1AC/24DC/10/M12	1111634	•	•																		•			•		b
TRIO-PS67/1AC/24DC/10/IPD	1111664	•	•																		•			•		b
TRIO-PS-IP67/1AC/24DC/20	1039830	•								•											•			•	•	b
TRIO-PS-IP67/3AC/24DC/20	1039829	•								•											•			•	•	b
TRIO CROSS POWER power supplies																										
EM-CPS-PS/3AC/24DC/5	1064922	•	•																		•				•	c
EM-CPS-PS/3AC/24DC/20/8C/IOL	1067898	•	•																		•				•	c

Approvals for UNO POWER

		UL						CSA		Ship						Ex											
		CE	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 GL Group	ABS American Bureau of Shipping	BV Bureau Veritas	LR Lloyd's Register	NK Nippon Kaiji Kyokai	RINA	ATEX	IEC 60335-1 household standard	DeviceNet™	SEMI F47-0706 Compliance Certificate PQ Star	CB Scheme	Medical standard IEC 60601, 2 x MOOP	Railway standard EN 50155, 50121-4	EAC	Startup at -40°C	Installation altitude
UNO POWER power supplies																											
UNO-PS/1AC/24DC/30W	2902991	•		•	•	•	•													•			•		a
UNO-PS/1AC/24DC/60W	2902992	•		•	•	•	•													•			•	•	d
UNO-PS/1AC/24DC/90W/C2LPS	2902994	•		•	•	•	•													•			•		a
UNO-PS/1AC/24DC/100W	2902993	•		•	•	•														•			•		a
UNO-PS/1AC/24DC/100W/H	1088851	•		•	•												•			•			•		a
UNO2-PS/1AC/24DC/120W	1110466	•	•			•														•			•		a
UNO-PS/1AC/24DC/150W	2904376	•		•	•	•														•			•		c
UNO2-PS/1AC/24DC/240W	1096432	•	•			•														•			•		a
UNO-PS/1AC/24DC/240W	2904372	•		•	•	•														•			•		a
UNO2-PS/1AC/24DC/480W	2910105	•	•			•														•			•		a
UNO-PS/1AC/5DC/25W	2904374	•		•	•	•	•													•			•		b
UNO-PS/1AC/5DC/40W	2904375	•		•	•	•														•			•		a
UNO-PS/1AC/12DC/30W	2902998	•		•	•	•														•			•		a
UNO-PS/1AC/12DC/55W	2902999	•		•	•	•														•			•		d
UNO-PS/1AC/12DC/55W/H	1088850	•		•	•												•			•			•		d
UNO-PS/1AC/12DC/100W	2902997	•		•	•	•														•			•		c
UNO-PS/1AC/15DC/30W	2903000	•		•	•	•	•													•			•		a
UNO-PS/1AC/15DC/55W	2903001	•		•	•	•														•			•		d
UNO-PS/1AC/15DC/100W	2903002	•		•	•	•														•			•		d
UNO-PS/1AC/48DC/60W	2902995	•		•	•	•	•													•			•		d
UNO-PS/1AC/48DC/100W	2902996	•		•	•	•														•			•		c
UNO2-PS/1AC/48DC/240W	1110155	•	•			•														•			•		a
UNO-PS/2AC/24DC/90W/C2LPS	2904371	•		•	•	•	•													•			•		b

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 STEP POWER

			UL					CSA		Ship						Ex										
		CE	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 GL Group	ABS American Bureau of Shipping	BV Bureau Veritas	LR Lloyd´s Register	NK Nippon Kaiji Kyokai	RINA	ATEX	IEC 60335-1 household standard	DeviceNet™	SEMI F47-0706 Compliance Certificate PQ Star	CB Scheme	Medical standard IEC 60601, 2 x MOOP	Railway standard EN 50155, 50121-4	EAC	Startup at -40°C	Installation altitude
STEP POWER power supplies																										
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
STEP-PS/1AC/24DC/0.5	2868596	•		•	•	•	•													•			•	•	b
STEP-PS/1AC/24DC/0.75FL	2868622	•		•	•	•	•			•	•			•						•	•		•	•	c
STEP-PS/1AC/24DC/0.75	2868635	•		•	•	•	•			•	•	•	•	•	•					•	•		•	•	c
STEP-PS/1AC/24DC/1.75	2868648	•		•	•	•	•			•	•			•						•			•	•	c
STEP-PS/1AC/24DC/2.5	2868651	•		•	•	•	•			•	•	•	•	•	•					•			•	•	a
STEP-PS/1AC/24DC/3.8/C2LPS	2868677	•		•	•	•	•			•								•		•			•	•	d
STEP-PS/1AC/24DC/4.2	2868664	•		•	•	•				•	•			•						•			•	•	d
STEP-PS/1AC/5DC/2	2320513	•		•	•		•													•			•		b
STEP3-PS/1AC/5DC/3/PT	1170954	•	•			•	•										•			•			•		b
STEP-PS/1AC/5DC/6.5	2868541	•		•	•	•				•	•			•						•			•	•	d
STEP-PS/1AC/12DC/1	2868538	•		•	•	•	•													•			•	•	b
STEP3-PS/1AC/12DC/1.3/PT	1170952	•	•			•	•										•			•			•		b
STEP-PS/1AC/12DC/1.5FL	2868554	•		•	•	•	•			•	•			•						•	•		•	•	c
STEP-PS/1AC/12DC/1.5	2868567	•		•	•	•	•			•	•			•						•	•		•	•	c
STEP3-PS/1AC/12DC/2.5/PT	1170953	•	•			•	•										•			•			•		b
STEP-PS/1AC/12DC/3	2868570	•		•	•	•	•			•	•			•						•			•	•	c
STEP-PS/1AC/12DC/5	2868583	•		•	•	•				•	•			•						•			•	•	d
STEP-PS/1AC/15DC/4	2868619	•		•	•	•				•	•			•						•			•	•	c
STEP-PS/1AC/48DC/2	2868680	•		•	•	•				•	•			•						•			•	•	d
STEP-PS/48AC/24DC/0.5	2868716	•		•	•		•													•			•	•	b
STEP-PS/277AC/24DC/3.5	2904945	•		•	•		•													•			•		a

Approvals for DC/DC converters

			UL									Ship							Ex								
		CE	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 GL Group	ABS American Bureau of Shipping	BV Bureau Veritas	LR Lloyd´s Register	NK Nippon Kaiji Kyokai	RINA	RMRS	ATEX/IECEx	EAC-Ex	CB Scheme	Railway standard EN 50155:2007	Railway standard EN 50121-4	EAC	EN 50121-3-2	Startup at -40°C	Installation altitude
DC/DC converters																											
QUINT4-PS/24DC/24DC/5/PT	2910119	•	•					•			•	•	•	•	*	*	*			•			•	•	•	c
QUINT4-PS/24DC/24DC/5/SC	1046800	•	•					•			•	•	•	•	*	*	*			•			•	•	•	c
QUINT4-PS/24DC/24DC/10/PT	2910120	•	•					•			•	•	•	•	*	*	*			•			•	•	•	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/12DC/12DC/8	2905007	•		•			•	•												•		•	•	•	•	d
QUINT-PS/60-72DC/24DC/10	2905009	•		•			•	•												•		•	•	•	•	d
QUINT-PS/96-110DC/24DC/10	2905010	•		•			•	•												•		•	•	•	•	d
QUINT4-PS/24DC/24DC/5/PT/CO	2910132	•	•					•			•							•		•			•	•	•	c
QUINT4-PS/24DC/24DC/10/PT/CO	2910133	•	•					•			•							•		•			•	•	•	c
QUINT-PS/60-72DC/24DC/10/CO	2905011	•		•			•	•												•	•	•	•	•	•	d
QUINT-PS/96-110DC/24DC/10/CO	2905012	•		•			•	•												•	•	•	•	•	•	d
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/48-110DC/24DC/2.5/PT	1066708	•	•					•			*									•					•	c
QUINT4-PS/12-24DC/5-15DC/2.5/PT	1066704	•	•					•			*									•					•	c
UNO-PS/350-900DC/24DC/60W	2906300	•				•														•			•		•	c
TRIO-PS-2G/1500DC/24DC/1.5	1107892	•				•														•			•			b
TRIO-PS-2G/1500DC/24DC/8	1075240	•			•															•			•		•	b

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Approvals for inverters and redundancy modules

		UL						CSA		Ship						Ex										
		CE	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 GL Group	ABS American Bureau of Shipping	BV Bureau Veritas	LR Lloyd´s Register	NK Nippon Kaiji Kyokai	RINA	ATEX	IECEx	DeviceNet™	SEMI F47-0706 Compliance Certificate PQ Star	CB Scheme in acc. with IEC 61010-1	CB Scheme in acc. w. IEC 61010-2-201	EAC	Startup at -40°C	Installation altitude
Inverters																										
QUINT4-INV/24DC/1AC/600VA/USB	1067325	•	•	•		•	•	•	•											•	•			a

		UL						CSA		Ship						Ex										
		CE	UL listed UL 508	UL/C-UL listed UL 508	UL/C-UL recognized UL 60950	UL 1778	UL listed ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D	UL 1310 NEC Class 2	CSA 22.2 No 107.1-01	CSA 22.2 No 60950-1-07	DNV GL Group	ABS American Bureau of Shipping	BV Bureau Veritas	LR Lloyd´s Register	NK Nippon Kaiji Kyokai	RINA	ATEX/IECEx	EAC-Ex	DeviceNet™	SEMI F47-0706 Compliance Certificate PQ Star	CB Scheme	Medical standard IEC 60601	EAC	Startup at -40°C	Installation altitude
Redundancy modules																										
QUINT4-S-ORING/12-24DC/1x40	2907752	•		•	•		•				•										•		•	•	c
QUINT4-S-ORING/12-24DC/1x40/+	2907753	•		•	•		•				•						•	•			•		•	•	c
QUINT4-S-ORING/12-24DC/1x40/VP	1043418	•		•	•		•										•	•			•		•	•	c
QUINT-ORING/24DC/2x10/1x20	2320173	•		•	•		•				•	•	•	•	•	•	•	•			•		•	•	e
QUINT-ORING/24DC/2x20/1x40	2320186	•		•	•		•				•	•	•	•	•	•	•	•			•		•	•	e
QUINT-ORING/24DC/2x40/1x80	2902879	•		•	•		•				•	•	•	•	•	•					•		•	•	e
QUINT4-DIODE/12-24DC/2x20/1x40	2907719	•		•	•		•										•	•					•	•	e
QUINT4-DIODE/48DC/2x20/1x40	2907720	•		•	•		•										•	•					•	•	e
TRIO2-DIODE/12-24DC/2x10/1x20	2907380	•		•	•						•												•	•	e
TRIO2-DIODE/12-24DC/2x20/1x40	2907379	•		•	•						•												•	•	e
UNO-DIODE/5-24DC/2x10/1x20	2905489	•		•	•																•		•	•	e
STEP-DIODE/5-24DC/2x5/1x10	2868606	•		•	•																•		•	•	e

Approvals for uninterruptible power supplies

		UL								CSA		Ship							Ex							
		CE	UL/C-UL listed 61010	UL listed UL 508	UL/C-UL listed UL 508	UL/C-UL recognized UL 60950	UL 1778	UL listed/ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D	UL 1310 NEC Class 2	CSA 22.2 No 107.1-01	CSA 22.2 No 60950-1-07	DNV GL Group	ABS American Bureau of Shipping	BV Bureau Veritas	LR Lloyd´s Register	NK Nippon Kaiji Kyokai	RINA	ATEX	SEMI F47-0706 Compliance	CB Scheme	Medical standard IEC 60601	EAC	Startup at -40°C	Installation altitude
Uninterruptible power supplies																										
QUINT4-UPS/24DC/24DC/5/PN	2906993	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/10/PN	2907068	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/20/PN	2907073	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/40/PN	2907079	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/5/EIP	2906994	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/10/EIP	2907069	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/20/EIP	2907074	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/40/EIP	2907080	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/5/EC	2906996	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/10/EC	2907070	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/20/EC	2907076	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/40/EC	2907081	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/5/USB	2906991	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/10/USB	2907067	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/20/USB	2907072	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/40/USB	2907078	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/5	2906990	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/10	2907066	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/20	2907071	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-UPS/24DC/24DC/40	2907077	•	•					•				*	*	*	*	*	*			•		•	•	b
QUINT4-CHARGER/1AC/24DC/10	2907990	•	•					•																
QUINT-UPS/24DC/12DC/5/24DC/10	2320461	•			•	•																•		e
QUINT4-UPS/1AC/1AC/500VA/USB	1067327	•					•	•												•		*		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
QUINT-UPS/24DC/24DC/5/1.3AH	2320254	•			•	•		•														•		d
QUINT-UPS/24DC/24DC/10/3.4AH	2320267	•			•	•		•														•		d
QUINT4-BUFFER/24DC/24DC/20	2907913	•			•	•		•												•		•	•	b
QUINT4-BUFFER/24DC/24DC/40	2909283	•			•	•		•												•		•	•	b
QUINT4-CAP/24DC/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
UNO-UPS/24DC/24DC/60W	2905907	•				•														•		•		e

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Approvals for energy storage devices

			UL							CSA		Ship							Ex							
		CE	UL/C-UL listed 61010	UL listed UL 508	UL/C-UL listed UL 508	UL/C-UL recognized UL 60950	UL 1778	UL listed/ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D	UL 1310 NEC Class 2	CSA 22.2 No 107.1-01	CSA 22.2 No 60950-1-07	DNV GL Group	ABS American Bureau of Shipping	BV Bureau Veritas	LR Lloyd´s Register	NK Nippon Kaiji Kyokai	RINA	ATEX	SEMI F47-0706 Compliance	CB Scheme	Medical standard IEC 60601	EAC	Startup at -40°C	Installation altitude
Uninterruptible power supplies																										
STEP-UPS/24DC/24DC/3/46WH	1081430	•			•	•														•		•		e
STEP-UPS/12DC/12DC/4/46WH	1082548	•			•	•														•		•		e
TRIO-UPS-2G/1AC/24DC/5	2907160	•	•									*										•	•	d
TRIO-UPS-2G/1AC/24DC/10	2907161	•	•									*										•	•	d
TRIO-UPS-2G/3AC/24DC/20	2906367	•	•									*										•	•	d
MINI-DC-UPS/24DC/2	2866640	•	•		•			•																c
MINI-DC-UPS/12DC/4	2866598	•	•		•			•														•		d

			UL						CSA		Ship							Ex								
		CE	UL/C-UL 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 GL Group	ABS American Bureau of Shipping	BV Bureau Veritas	LR Lloyd´s Register	NK Nippon Kaiji Kyokai	RINA	ATEX	IECEx	DeviceNet™	SEMI F47-0706 Compliance Certificate PQ Star	CB Scheme	Medical standard IEC 60601	EAC	Startup at -40°C	Installation altitude
Energy storage devices																										
UPS-BAT/PB/24DC/1.2AH	1274520	•	•				•				*	*											•		d
UPS-BAT/PB/24DC/4AH	1274117	•	•				•				*	*											•		d
UPS-BAT/PB/24DC/7AH	1274118	•	•				•				*	*											•		d
UPS-BAT/PB/24DC/12AH	1274119	•	•				•				*	*											•		d
UPS-BAT/VRLA/24DC/20AH	1109004	•		•	•		•				*	•											•		d
UPS-BAT/VRLA/24DC/38AH	2320335	•		•	•		•				•	•									•		•		d
UPS-BAT/VRLA-WTR/24DC/13AH	2320416	•		•	•		•				•	•									•		•		d
UPS-BAT/VRLA-WTR/24DC/26AH	2320429	•		•	•		•				•	•									•		•		d
UPS-BAT/LI-ION/24DC/120WH	2320351	•		•	•		•				*												•		d
UPS-BAT/LI-ION/24DC/924 WH	2908232	•		•	•		•				*												•		d
STEP-BAT/LI-ION/18.5DC/46WH	1081355	•																			•		•		e
MINI-BAT/24DC/0.8AH	2866666	•																					•		d
MINI-BAT/24DC/1.3AH	2866417	•																					•		d
MINI-BAT/12DC/1.6AH	2866572	•																					•		d
MINI-BAT/12DC/2.6AH	2866569	•																					•		d

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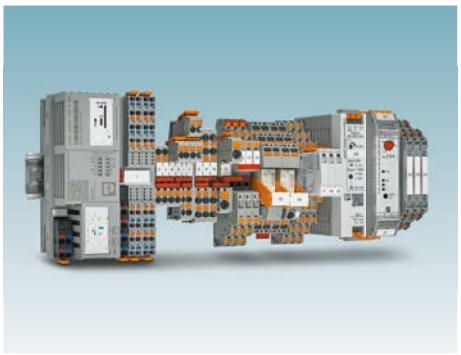
COMPLETE line – the comprehensive solution for the control cabinet

COMPLETE line system encompasses technologically leading and coordinated hardware and software products, consulting services, and system solutions that help you optimize your processes in control cabinet manufacturing. Engineering, purchasing, installation, and operation become significantly easier for you.

Web code: #2089

Your advantages in detail:



Comprehensive product portfolio

With COMPLETE line, we offer a complete product portfolio of technologically leading products. This includes:

- Controllers and I/O modules
- Power supplies and device circuit breakers
- Terminal blocks and distribution blocks
- Relay modules and motor starters
- Signal conditioners
- Safety technology
- Surge protection
- Heavy-duty connectors

Intuitive handling

Thanks to the simple, intuitive handling of the coordinated hardware components, you will save time during installation, commissioning, and maintenance. With Push-in connection technology, you can wire applications quickly – without using tools. The broad, technologically leading product portfolio will always provide you with the right product for standard or special applications.

Save time throughout the entire engineering process

PROJECT complete planning and marking software supports the entire process of control cabinet manufacturing. The program features an intuitive user interface that allows the individual planning, automatic checking, and direct ordering of terminal strips.

Reduced logistics costs

Reduced variety of parts, thanks to standardized marking, bridging, and testing accessories. The COMPLETE line system coordinates products, design, and accessories so that you benefit from maximum reusability and thus reduce your logistics costs.

Optimized processes in control cabinet manufacturing

COMPLETE line supports you, from engineering through to manufacturing, in designing your control cabinet production as efficient as possible. This is how your customized concept for optimizing your processes in control cabinet manufacturing is created. Our terminal strip production helps you to flexibly manage order peaks or to supply your control cabinet production with fully assembled DIN rails just in time.

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The new standard for the control cabinet

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