

Uninterruptible power supply units

The intelligent QUINT UPS-IQ

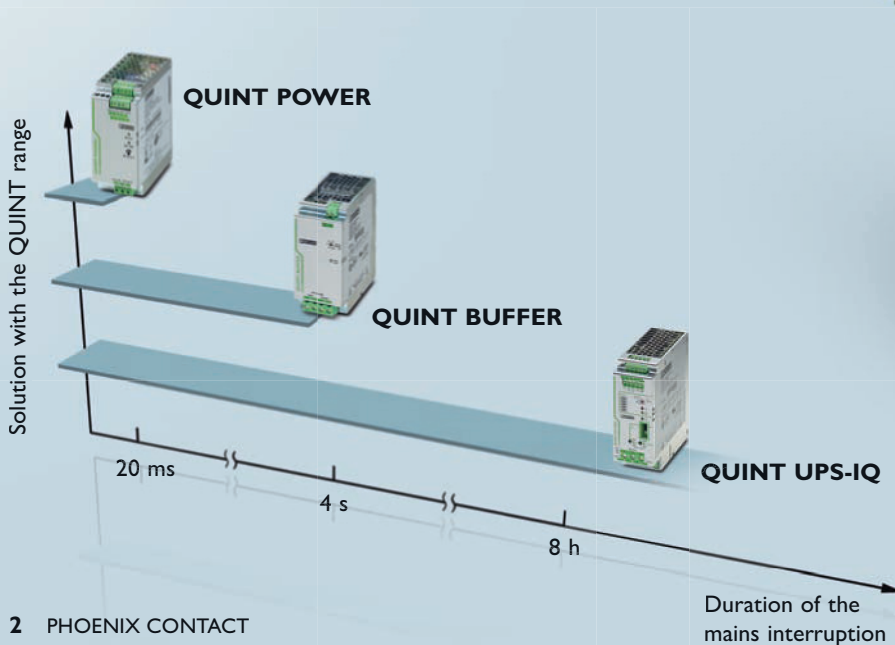
Intelligence for superior system availability

Uninterruptible power supplies (UPS) continue to deliver power even if the power source is missing. An uninterruptible solution consists of three components:

- Power supply unit
- UPS control unit
- Battery unit

Disturbances in the power supply network occur for various reasons: switching operations interrupt the input power for 10 to 20 ms. Poor power quality causes voltage dips of 200 ms to 4 s. Failures due to faulty electrical cables can persist for hours at a time.

With the QUINT range, you can optimally detect every mains interruption:

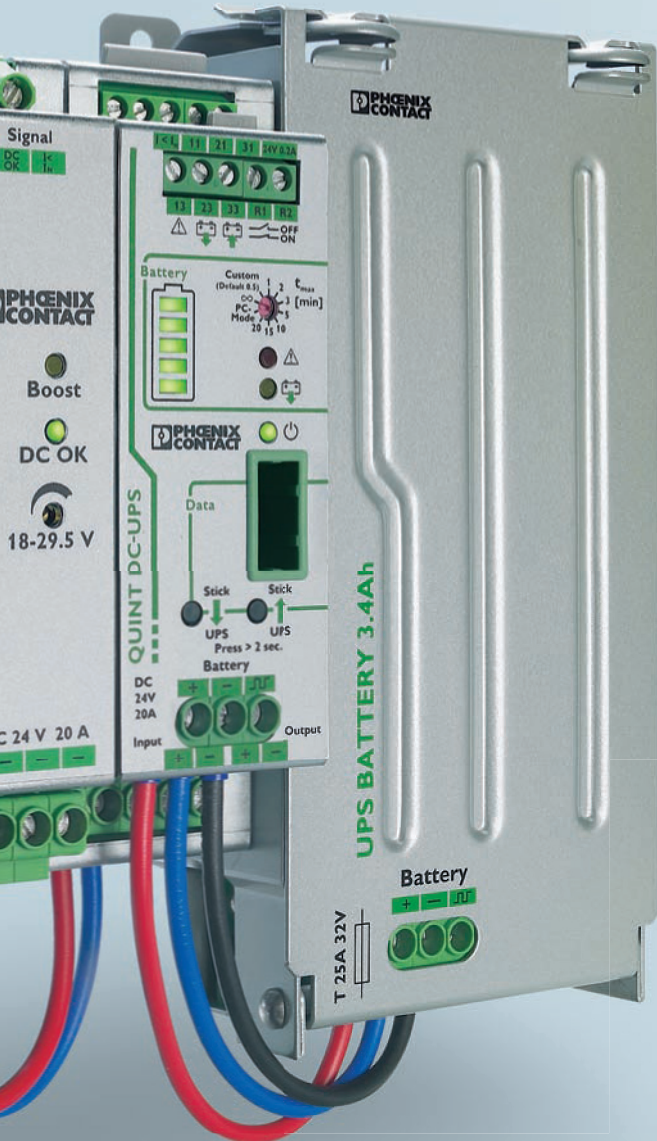


Power supply unit



UPS control unit

Battery unit



What makes the QUINT UPS-IQ an intelligent UPS?

IQ technology is intuitive and provides you with information when required.

Intelligent Battery Management:



SOC (State Of Charge) – current charging state and remaining back-up time of the battery unit.



SOH (State Of Health) – remaining life expectancy of the battery unit, provides early warning for a potential battery unit failure.



SOF (State Of Function) – determines the current performance of the battery unit.



Intelligent Battery Control – automatically detects the connected battery type and maximizes the remaining service life of the battery unit via an optimally adapted charging characteristic.



Intelligent Charging – adapts the charging current and thereby ensures the fastest possible recharging and availability.



Data Port – serves the communication between the UPS and PC, e.g. for configuration of the UPS.

QUINT DC UPS-IQ

The optimum solution for DC applications

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

Optimum use of the buffer time

- Detects the current charging state of the battery unit and calculates the remaining runtime
- Reliable load power with optimum battery utilization

Preventive battery monitoring

- Calculates the current life expectancy of the battery unit
- Optimum time for replacing the battery avoids costs incurred as a result of failures or early replacement

Fast battery charging

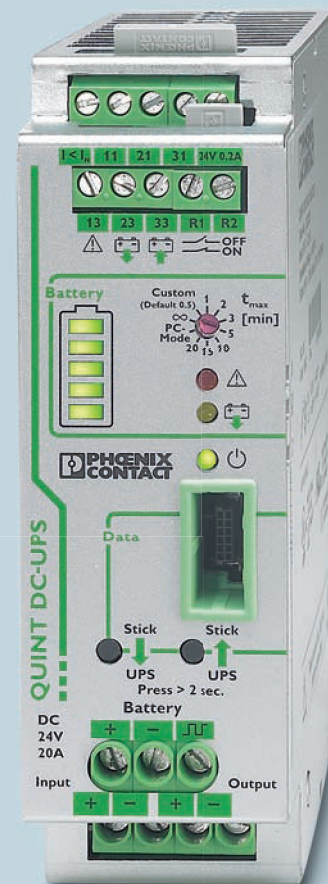
Adaptive current management charges the battery twice as fast as was previously the case, while concurrently providing sufficient energy for the load.

Power reserve

- For line and battery operation
- POWER BOOST static power reserve
- Dynamic power reserve SFB technology (Selective Fuse Breaking)

SFB
TECHNOLOGY

IQ
TECHNOLOGY



Advanced signaling and configuration

- Dry relay contacts
- DATA port for connection to a USB interface
- Configuration using a plug-in memory block

QUINT UPS-IQ

Intelligent battery unit



Extremely long service life

Optimum charging characteristic according to battery type and ambient conditions

In combination with QUINT UPS-IQ, the battery pack with 1.3 to 38 Ah in VRLA technology, allows buffer times of 8 hours at 5 A or 30 minutes at 40 A.

The Li-ION battery is used in extreme ambient temperatures.



Fast installation

- Automatic detection of the battery unit via the QUINT UPS-IQ
- Battery unit can be "hot swapped"

Maximum availability

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

Wide temperature range

Li-ION battery for reliable power supply at ambient temperatures of -20°C to +60°C

QUINT BUFFER

For failures lasting several seconds

The buffer module saves the required energy in maintenance-free capacitors and bridges AC lines failures of 200 ms at 40 A or 8 s at 1 A.

Easy handling

- Maintenance-free capacitor-based power storage device
- Reports operational readiness

Outdoor installation

Wide temperature range of - 25°C to + 80°C

Space-saving

- Combines the UPS control unit and capacitor-based power storage device in the same housing
- Double the buffer time and double the current in comparison to the previous model

Long buffer time

Integrated decoupling function supplies selected loads with energy for longer time than before



Adjustable activation thresholds

- Auto mode: optimized for QUINT POWER power supply units
- Can be set manually: for applications using transformers or for long cables

QUINT POWER

Power supply units bridge 20 ms

Reliable starting of heavy loads

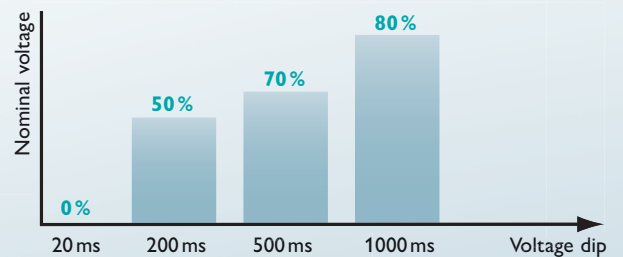
POWER BOOST static power reserve with up to 1.5-fold continuous nominal current



Capacitors provide the nominal current in the case of mains power failure for at least 20 ms, and for significantly longer in the case of voltage dips.

SEMI F47

- Conforms with the stringent requirements of semiconductor production:
- Power supply units bridge voltage dips of the nominal voltage



Preventive function monitoring

- Reports the critical operating states before any error occurs by continuously monitoring the output voltage and current
- Remote monitoring using transistor outputs and dry relay contacts

Quick triggering of thermo-magnetic circuit breakers

Dynamic power reserve SFB technology (Selective Fuse Breaking) with up to 6-fold nominal current for 12 ms



QUINT AC UPS-IQ

The optimum solution for AC applications

The AC UPS control unit for 120 V AC / 230 V AC with a power of 400 W / 500 VA is suitable for mains interruptions that last several hours.



Optimum use of the buffer time and preventive battery monitoring

- Detects the current charging state of the battery unit and calculates the remaining runtime
- Calculates the current life expectancy of the battery unit

Can be used worldwide

- Input voltages of 96 to 264 V AC
- Storage of the level and frequency of the input voltage, in the case of mains power failure, the output is automatically supplied with 120 V AC/60 Hz or 230 V AC/50 Hz.
- Manual voltage preselection possible

Signaling and configuration

- Switching outputs
- USB interface
- Configuration using memory block



Simplified startup

Switching on the AC UPS without a power supply network is possible

Maximum energy efficiency

Offline operation: efficiency of 99% for charged batteries

QUINT UPS-IQ Software

Flexibly configurable

Flexible adaptation of QUINT UPS-IQ behavior to individual requirements

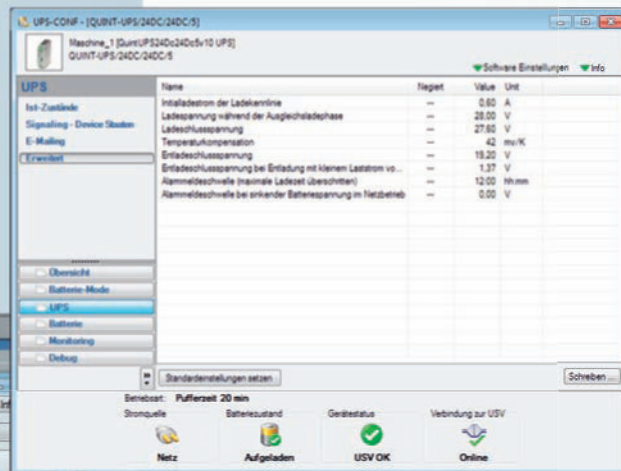
With the UPS-CONF configuration and management software, you can monitor and configure your UPS solution on the PC.

The software can be downloaded free of charge at:

www.phoenixcontact.net/catalog

Preventive function monitoring

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



UPS	Name	Wert	Unit
Inst-Zustände	Installdatum der Ladefunktion	--	0.80 A
Signalling - Device Status	Ladespannung während der Ausgleichsphase	--	28.00 V
E-Mailing	Ladeschlussspannung	--	27.80 V
Erweitert	Temperaturkompensation	--	42 mV/K
	Entladeschlussspannung	--	19.00 V
	Entladeschlussspannung bei Entladung mit kleinem Laststrom vor...	--	1.37 V
	Alarmdegschwellen (normale Ladestrom überschritten)	--	12.00 H:mm
	Alarmdegschwellen bei sinkender Batteriespannung im Netzbetrieb	--	0.00 V



Integrated data recorder

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

Select your AC or DC UPS solution

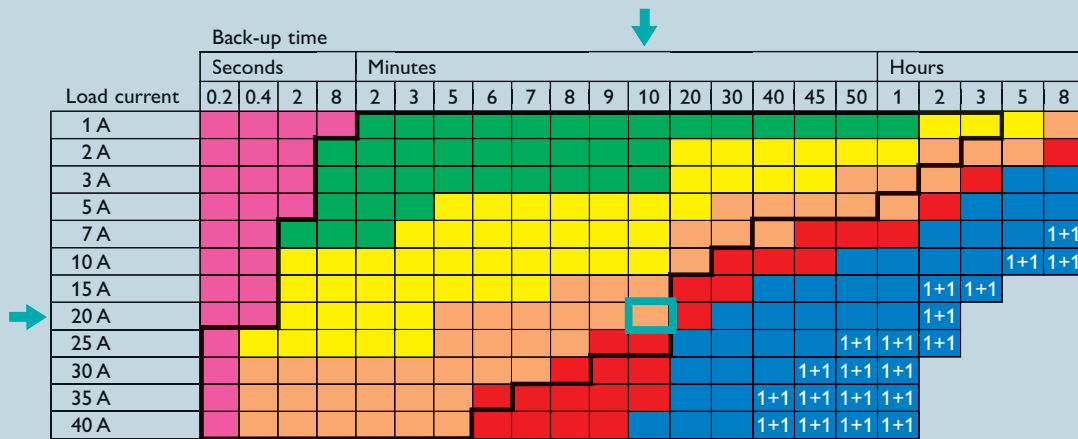
QUINT DC UPS / QUINT BUFFER

Select your **UPS battery unit** for 24 V DC applications here.

Example: 20 A should be buffered for 10 minutes



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



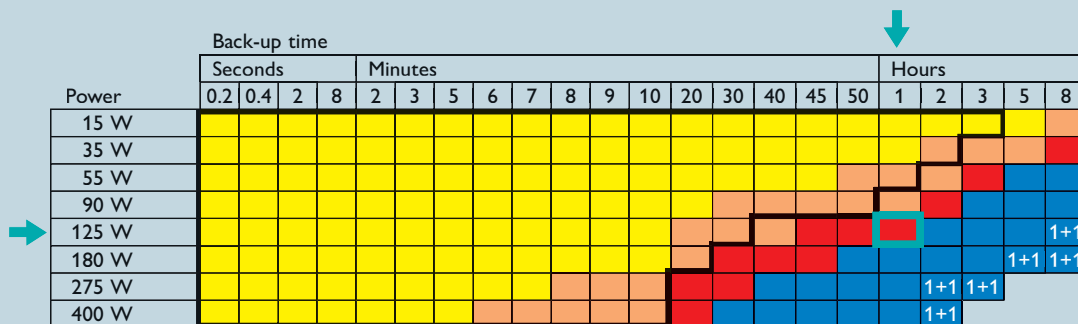
QUINT AC UPS

Select your **UPS battery unit** for 120 V AC / 230 V AC applications here.

Example: 125 W should be buffered for an hour:






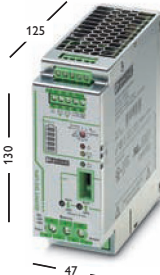

→ QUINT-UPS/1AC/1AC/500VA and UPS-BAT/VRLA/24DC/12AH









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

QUINT DC UPS

QUINT BUFFER

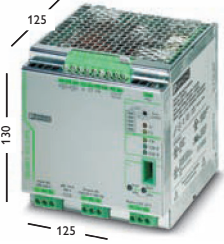



				
24 V / 5 A	24 V / 10 A	24 V / 20 A	24 V / 40 A	24 V / 40 A
QUINT-UPS/24DC/24DC/5 2320212	QUINT-UPS/24DC/24DC/10 2320225	QUINT-UPS/24DC/24DC/20 2320238	QUINT-UPS/24DC/24DC/40 2320241	QUINT-BUFFER/24DC/24DC/40 2320393
recommended UPS BAT: 1.3 Ah ... 12 A	recommended UPS BAT: 1.3 Ah ...38 Ah	recommended UPS BAT: 3.4 Ah ...38 Ah	recommended UPS BAT: 7.2 Ah ...38 Ah	

UPS Battery Unit

					
1.3 Ah	3.4 Ah	7.2 Ah	60 WH	12 Ah	38 Ah
UPS-BAT/ VRLA/24DC/1.3AH 2320296	UPS-BAT/ VRLA/24DC/3.4AH 2320306	UPS-BAT/ VRLA/24DC/7.2AH 2320319	UPS-BAT/LI- ION/24DC/60WH 2320351	UPS-BAT/ VRLA/24DC/12AH 2320322	UPS-BAT/ VRLA/24DC/38AH 2320335

QUINT AC UPS

Accessories

			
400 W / 500 VA	Software	Data cable	Memory block
QUINT-UPS/1AC/1AC/500VA 2320270	Free download at www.phoenixcontact.net/catalog UPS-CONF from V2.0 2320403	for communication between UPS and UPS-CONF, length: 3 m IFS-USB-DATACABLE 2320500	for saving and transmitting configured values to other QUINT UPS-IQ IFS-CONFSTICK 2986122

Further information on the products presented here and on the world of solutions from Phoenix Contact can be found at www.phoenixcontact.net/catalog



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