

### Selecting the energy storage for QUINT DC UPS

The new modular system for uninterruptible power supplies always offers the ideal solution for superior system availability. The various storage media feature a wide range of different properties: long service life or very long buffer time, no maintenance or use at extreme ambient temperatures. Whatever your requirements, we offer the ideal energy storage.

#### Your advantages

- Fast installation
  - Automatic detection of the energy storage device by QUINT UPS
  - Tool-free replacement during operation
- Maximum availability
  - Constant communication with QUINT UPS for continuous monitoring and intelligent management
- Extremely long service life
  - Optimum charging characteristic according to the technology and ambient conditions

Type	Buffer time Typical	Temperature	Service life At +20°C	Service life At +50°C	Charging cycles At +20°C	Weight Standardized
UPS-CAP...	< 5 min	-40 ... 60°C	> 20 years	5 years	> 500.000	0.4 kg
UPS-BAT/LI-ION...	> 40 min	-20 ... 58°C	15 years	2 years	7000	0.45 kg
UPS-BAT/VRLA-WTR...	> 5 h	-25 ... 60°C	12 years	1.5 years	300	1.3 kg
UPS-BAT/VRLA...	> 8 h	0 ... 40°C	6 ... 9 years	1 year	250	1 kg



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

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



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

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



**UPS-BAT/LI-ION...**

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

**UPS-CAP (capacitor)**

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

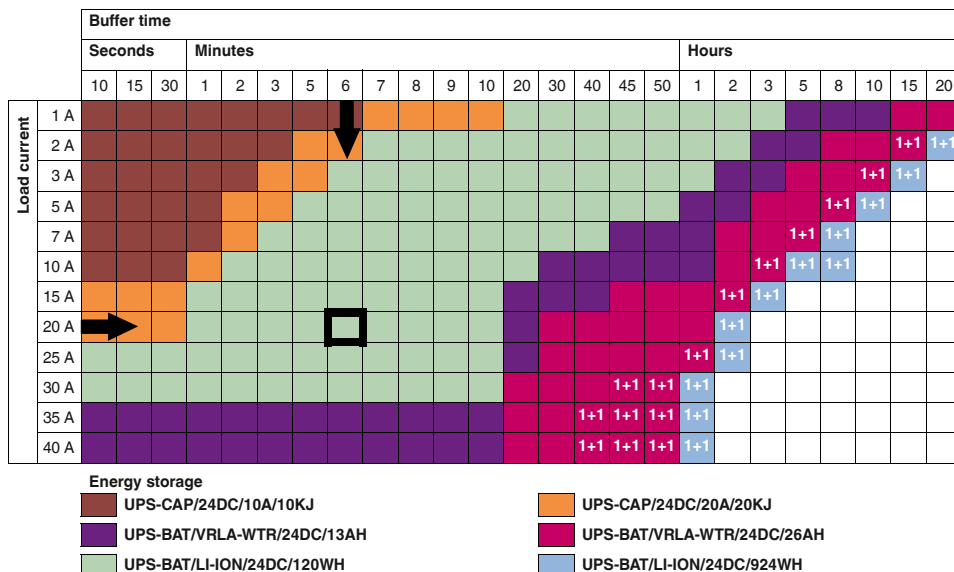
**Buffer times for QUINT DC UPS**

**Buffer times of energy storage devices with double-layer capacitors, lithium iron phosphate and pure lead AGM technology with wide temperature range**

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

Example: 20 A needs to be buffered for 6 minutes.

Solution:  
UPS-BAT/LI-ION/24DC/120WH



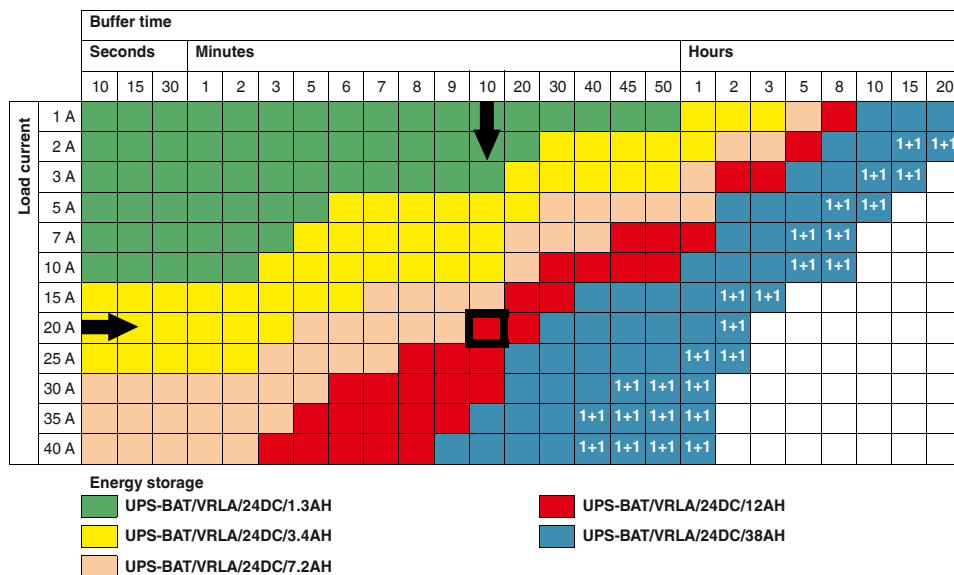
1+1 ... Two energy storage devices of the same capacity are required in this case. The data is based on an ambient temperature of +20°C.

**Buffer times of energy storage devices with lead AGM technology**

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

Example: 20 A needs to be buffered for 10 minutes.

Solution:  
UPS-BAT/VRLA/24DC/12AH



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.

# Power supply units and UPS

## Uninterruptible power supplies

### QUINT UPS for DC applications

#### QUINT DC UPS, 24 V DC with PROFINET interface

The UPS modules for 5 to 40 A allow you to create a custom solution combining a power supply, UPS module, and energy storage device.

Easy integration into PROFINET networks:

- Via 2-port switch

Intelligent battery management:

- Automatic detection of battery capacities and technologies
- Maximizes the remaining service life of the energy storage device, thanks to an optimally adjusted charging characteristic
- The very powerful battery charger maximizes system availability

Extended load management:

Energy monitoring – monitoring of input and output voltages and the associated currents

PC shutdown function – reliable shutdown of the IPC in the event of mains failure without data loss, and autostart of the IPC when power returns

Cold restart function – UPS startup even without mains power

Substantial power reserve:

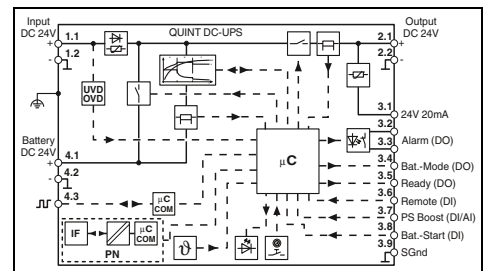
- Static boost up to 125% for a sustained period
- Dynamic boost up to 200% for 5 s
- SFB (Selective Fuse Breaking) Technology

Comprehensive signaling via LEDs and signal contacts:

- Load is being supplied by the energy storage device
- Energy storage device is being charged
- An alarm is present



Uninterruptible power supply, 24 V DC / 24 V DC, 5 A, PN



#### Technical data

<b>Input data</b>	18 V DC ... 30 V DC 22 V DC / 30 V DC Fixed connect threshold Current consumption $I_N / I_{Max} / I_{No-Load} / I_{Charge}$ Power consumption $P_N / P_{Max} / P_{No-Load} / P_{Charge}$	18 V DC ... 30 V DC 22 V DC / 30 V DC 5.1 A / 8.3 A / 105 mA / 1.9 A 123 W / 213 W / 2.5 W / 44 W	
<b>Output data (mains operation)</b>	Output voltage Output voltage range Output current $I_N / I_{Stat. Boost} / I_{Dyn. Boost} / I_{SFB}$ Output power $P_N / P_{Stat. Boost} / P_{Dyn. Boost}$	24 V DC ( $U_{OUT} = U_{IN} - 0.3 V DC$ ) 18 V DC ... 30 V DC ( $U_{OUT} = U_{IN} - 0.3 V DC$ ) 5 A / 6.25 A / 10 A (5 s) / 30 A (15 ms) 120 W / 155 W / 240 W (5 s)	
<b>Output data (battery operation)</b>	Output voltage Output voltage range Output current $I_N / I_{Stat. Boost} / I_{Dyn. Boost} / I_{SFB}$ Output power $P_N / P_{Stat. Boost} / P_{Dyn. Boost}$	24 V DC ( $U_{OUT} = U_{BAT} - 0.3 V DC$ ) 19 V DC ... 32 V DC ( $U_{OUT} = U_{BAT} - 0.3 V DC$ ) 5 A / 6.25 A / 10 A (5 s) / 30 A (15 ms) 120 W / 150 W / 240 W (5 s)	
<b>Energy storage</b>	Charge characteristic curve Nominal voltage $U_N$ End-of-charge voltage (configurable) Charging current (configurable) Deep discharge protection (configurable) Battery technology Nominal capacity (without additional charger) Energy storage device connection in parallel	$I_{U_0} U$ 24 V DC 27.6 V DC max. 1.5 A 19.2 V DC VRLA, VRLA-WTR, LI-ION 0.8 Ah ... 30 Ah Yes, 5 (observe line protection)	
<b>Signaling</b>	LED signaling	DC OK (green), Alarm (red), Bat.-Mode (yellow), SOC (red, green), Data (red, green)	
<b>Configurable signal output</b>	Channel Interface	OptoMOS, switch contact (floating) 2x DO, 2x DI, 1x DI or AI PROFINET	
<b>General data</b>	Weight / Dimensions W x H x D Connection method power / signal Power connection data rigid / flexible / AWG Signal connection data rigid / flexible / AWG Degree of protection / Protection class Ambient temperature (operation) Ambient temperature (storage/transport) Max. permissible relative humidity (operation) Standards/regulations	0.5 kg / 35 x 130 x 125 mm Screw connection / Push-in technology 0.2 - 2.5 mm <sup>2</sup> / 0.2 - 2.5 mm <sup>2</sup> / 30 - 12 0.2 - 1 mm <sup>2</sup> / 0.2 - 1 mm <sup>2</sup> / 24 - 16 IP20 / III -25°C ... 70°C (> 60°C Derating: 2.5%/K) -40°C ... 85°C ≤ 95% (at 25°C, non-condensing) UL/C-UL Listed UL 61010-1, UL/C-UL Listed UL 61010-2-201, UL/C-UL Listed ANSI/ISA-12.12.01 Class 1, Division 2, Groups A, B, C, D T4 (Hazardous Location)	
<b>UL approvals</b>			
<b>Ordering data</b>			
<b>Description</b>	<b>Type</b>	<b>Order No.</b>	<b>Pcs./Pkt.</b>
Power supply, uninterruptible	QUINT4-UPS/24DC/24DC/5/PN	2906993	1



Uninterruptible power supply,  
24 V DC / 24 V DC, 10 A, PN



Uninterruptible power supply,  
24 V DC / 24 V DC, 20 A, PN



Uninterruptible power supply,  
24 V DC / 24 V DC, 40 A, PN



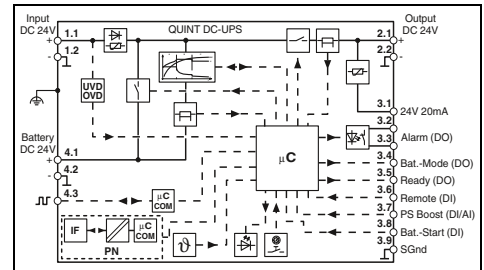
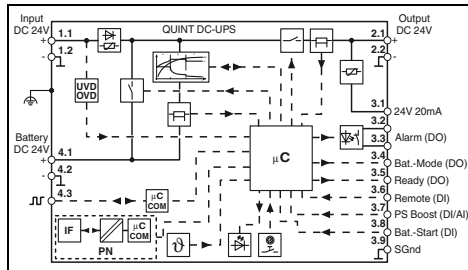
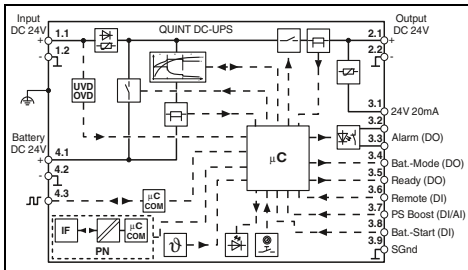
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Ex:



### Technical data

18 V DC ... 30 V DC  
22 V DC / 30 V DC  
10.1 A / 16.3 A / 105 mA / 3.7 A  
245 W / 386 W / 2.6 W / 92 W

24 V DC ( $U_{OUT} = U_{IN} - 0.4$  V DC)  
18 V DC ... 30 V DC  
10 A / 12.5 A / 20 A (5 s) / 60 A (15 ms)  
240 W / 300 W / 480 W (5 s)

24 V DC ( $U_{OUT} = U_{BAT} - 0.4$  V DC)  
19 V DC ... 32 V DC  
10 A / 12.5 A / 20 A (5 s) / 60 A (15 ms)  
240 W / 300 W / 480 W (5 s)

$I_{U_0U}$   
24 V DC  
27.6 V DC  
3 A  
19.2 V DC  
VRLA, VRLA-WTR, LI-ION  
1.2 Ah ... 60 Ah  
Yes, 5 (observe line protection)

DC OK (green), Alarm (red), Bat.-Mode (yellow), SOC (red, green),  
Data (red, green)  
OptoMOS, switch contact (floating)  
2x DO, 2x DI, 1x DI or AI  
PROFINET

0.5 kg / 35 x 130 x 125 mm  
Screw connection / Push-in technology  
0.2 - 2.5 mm<sup>2</sup> / 0.2 - 2.5 mm<sup>2</sup> / 30 - 12  
0.2 - 1 mm<sup>2</sup> / 0.2 - 1 mm<sup>2</sup> / 24 - 16  
IP20 / III  
-25°C ... 70°C (> 60°C Derating: 2.5%/K)  
-40°C ... 85°C  
≤ 95% (at 25°C, non-condensing)

UL/C-UL Listed UL 61010-1, UL/C-UL Listed UL 61010-2-201,  
UL/C-UL Listed ANSI/ISA-12.12.01 Class I, Division 2,  
Groups A, B, C, D T4 (Hazardous Location)

### Ordering data

Type	Order No.	Pcs./Pkt.
QUINT4-UPS/24DC/24DC/10/PN	2907068	1

### Technical data

18 V DC ... 30 V DC  
22 V DC / 30 V DC  
20.1 A / 31.2 A / 105 mA / 6.1 A  
475 W / 740 W / 2.6 W / 148 W

24 V DC ( $U_{OUT} = U_{IN} - 0.4$  V DC)  
18 V DC ... 30 V DC  
20 A / 25 A / 30 A (5 s) / 120 A (15 ms)  
480 W / 600 W / -

24 V DC ( $U_{OUT} = U_{BAT} - 0.4$  V DC)  
19 V DC ... 32 V DC  
20 A / 25 A / 30 A (5 s) / 120 A (15 ms)  
480 W / 600 W / -

$I_{U_0U}$   
24 V DC  
27.6 V DC  
5 A  
19.2 V DC  
VRLA, VRLA-WTR, LI-ION  
3 Ah ... 100 Ah  
Yes, 5 (observe line protection)

DC OK (green), Alarm (red), Bat.-Mode (yellow), SOC (red, green),  
Data (red, green)  
OptoMOS, switch contact (floating)  
2x DO, 2x DI, 1x DI or AI  
PROFINET

0.6 kg / 40 x 130 x 125 mm  
Screw connection / Push-in technology  
0.2 - 6 mm<sup>2</sup> / 0.2 - 4 mm<sup>2</sup> / 30 - 10  
0.2 - 1 mm<sup>2</sup> / 0.2 - 1 mm<sup>2</sup> / 24 - 16  
IP20 / III  
-25°C ... 70°C (> 60°C Derating: 2.5%/K)  
-40°C ... 85°C  
≤ 95% (at 25°C, non-condensing)

UL/C-UL Listed UL 61010-1, UL/C-UL Listed UL 61010-2-201,  
UL/C-UL Listed ANSI/ISA-12.12.01 Class I, Division 2,  
Groups A, B, C, D T4 (Hazardous Location)

### Ordering data

Type	Order No.	Pcs./Pkt.
QUINT4-UPS/24DC/24DC/20/PN	2907073	1

### Technical data

18 V DC ... 30 V DC  
22 V DC / 30 V DC  
40.1 A / 51.2 A / 105 mA / 6.1 A  
967 W / 1122 W / 2.6 W / 148 W

24 V DC ( $U_{OUT} = U_{IN} - 0.5$  V DC)  
18 V DC ... 30 V DC  
40 A / 45 A / 60 A (5 s) / 215 A (15 ms)  
960 W / 1080 W / -

24 V DC ( $U_{OUT} = U_{BAT} - 0.5$  V DC)  
19 V DC ... 32 V DC  
40 A / 45 A / 60 A (5 s) / 215 A (15 ms)  
960 W / 1080 W / -

$I_{U_0U}$   
24 V DC  
27.6 V DC  
5 A  
19.2 V DC  
VRLA, VRLA-WTR, LI-ION  
7 Ah ... 100 Ah  
Yes, 5 (observe line protection)

DC OK (green), Alarm (red), Bat.-Mode (yellow), SOC (red, green),  
Data (red, green)  
OptoMOS, switch contact (floating)  
2x DO, 2x DI, 1x DI or AI  
PROFINET

0.7 kg / 47 x 130 x 125 mm  
Screw connection / Push-in technology  
0.5 - 16 mm<sup>2</sup> / 0.5 - 16 mm<sup>2</sup> / 8 - 6  
0.2 - 1 mm<sup>2</sup> / 0.2 - 1 mm<sup>2</sup> / 24 - 16  
IP20 / III  
-25°C ... 70°C (> 60°C Derating: 2.5%/K)  
-40°C ... 85°C  
≤ 95% (at 25°C, non-condensing)

UL/C-UL Listed UL 61010-1, UL/C-UL Listed UL 61010-2-201,  
UL/C-UL Listed ANSI/ISA-12.12.01 Class I, Division 2,  
Groups A, B, C, D T4 (Hazardous Location)

### Ordering data

Type	Order No.	Pcs./Pkt.
QUINT4-UPS/24DC/24DC/40/PN	2907079	1

# Power supply units and UPS

## Uninterruptible power supplies

### QUINT UPS for DC applications

#### QUINT DC UPS, 24 V DC with EtherNet/IP™ interface

The UPS modules for 5 to 40 A allow you to create a custom solution combining a power supply, UPS module, and energy storage device.

Easy integration into EtherNet/IP™ networks:

- Via 2-port switch

Intelligent battery management:

- Automatic detection of battery capacities and technologies
- Maximizes the remaining service life of the energy storage device, thanks to an optimally adjusted charging characteristic
- The very powerful battery charger maximizes system availability

Extended load management:

Energy monitoring – monitoring of input and output voltages and the associated currents

Cold restart function – UPS startup even without mains power

Substantial power reserve:

- Static boost up to 125% for a sustained period
- Dynamic boost up to 200% for 5 s
- SFB (Selective Fuse Breaking) Technology

Comprehensive signaling via LEDs and signal contacts:

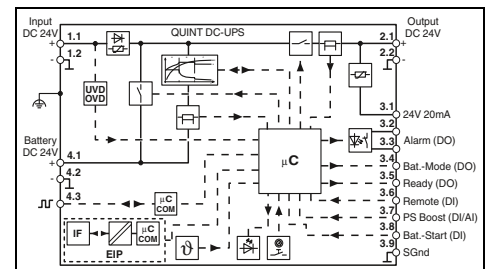
- Load is being supplied by the energy storage device
- Energy storage device is being charged
- An alarm is present



EtherNet/IP



Uninterruptible power supply, 24 V DC / 24 V DC, 5 A, EIP

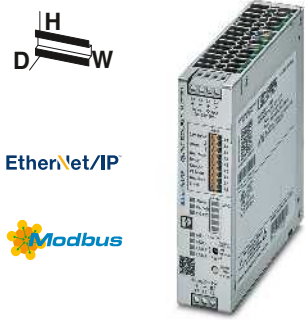


#### Technical data

<b>Input data</b>	18 V DC ... 30 V DC 22 V DC / 30 V DC Current consumption $I_N / I_{Max} / I_{No-Load} / I_{Charge}$ 5.1 A / 8.3 A / 105 mA / 1.9 A Power consumption $P_N / P_{Max} / P_{No-Load} / P_{Charge}$ 123 W / 213 W / 2.5 W / 44 W
<b>Output data (mains operation)</b>	24 V DC ( $U_{OUT} = U_{IN} - 0.3$ V DC) 18 V DC ... 30 V DC ( $U_{OUT} = U_{IN} - 0.3$ V DC) Output current $I_N / I_{Stat. Boost} / I_{Dyn. Boost} / I_{SFB}$ 5 A / 6.25 A / 10 A (5 s) / 30 A (15 ms) Output power $P_N / P_{Stat. Boost} / P_{Dyn. Boost}$ 120 W / 155 W / 240 W (5 s)
<b>Output data (battery operation)</b>	24 V DC ( $U_{OUT} = U_{BAT} - 0.3$ V DC) 19 V DC ... 32 V DC ( $U_{OUT} = U_{BAT} - 0.3$ V DC) Output current $I_N / I_{Stat. Boost} / I_{Dyn. Boost} / I_{SFB}$ 5 A / 6.25 A / 10 A (5 s) / 30 A (15 ms) Output power $P_N / P_{Stat. Boost} / P_{Dyn. Boost}$ 120 W / 150 W / 240 W (5 s)
<b>Energy storage</b>	$IU_0U$ 24 V DC 27.6 V DC max. 1.5 A 19.2 V DC VRLA, VRLA-WTR, LI-ION 0.8 Ah ... 30 Ah Yes, 5 (observe line protection)
<b>Signaling</b>	DC OK (green), Alarm (red), Bat.-Mode (yellow), SOC (red, green), Data (red, green) OptoMOS, switch contact (floating) 2x DO, 2x DI, 1x DI or AI EtherNet/IP™
<b>General data</b>	0.5 kg / 35 x 130 x 125 mm Screw connection / Push-in technology Power connection data rigid / flexible / AWG 0.2 - 2.5 mm <sup>2</sup> / 0.2 - 2.5 mm <sup>2</sup> / 30 - 12 Signal connection data rigid / flexible / AWG 0.2 - 1 mm <sup>2</sup> / 0.2 - 1 mm <sup>2</sup> / 24 - 16 IP20 / III -25°C ... 70°C (> 60°C Derating: 2.5%/K) -40°C ... 85°C ≤ 95% (at 25°C, non-condensing)
<b>Standards/regulations</b>	UL/C-UL Listed UL 61010-1, UL/C-UL Listed UL 61010-2-201, UL/C-UL Listed ANSI/ISA-12.12.01 Class 1, Division 2, Groups A, B, C, D T4 (Hazardous Location)

#### Ordering data

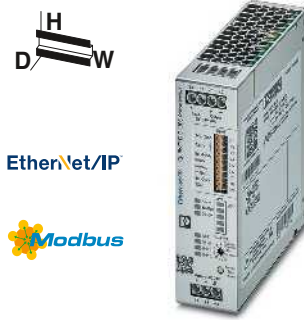
Description	Type	Order No.	Pcs./Pkt.
Power supply, uninterruptible	QUINT4-UPS/24DC/24DC/5/EIP	2906994	1



EtherNet/IP



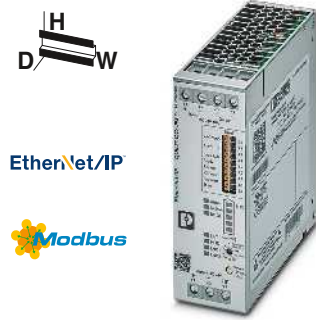
**Uninterruptible power supply,  
24 V DC / 24 V DC, 10 A, EIP**



EtherNet/IP



**Uninterruptible power supply,  
24 V DC / 24 V DC, 20 A, EIP**



EtherNet/IP



**Uninterruptible power supply,  
24 V DC / 24 V DC, 40 A, EIP**



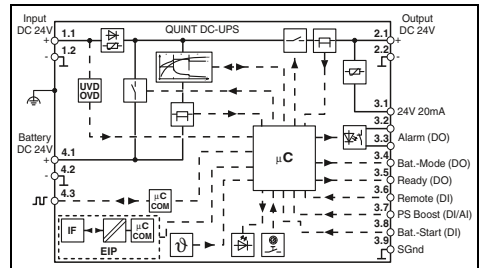
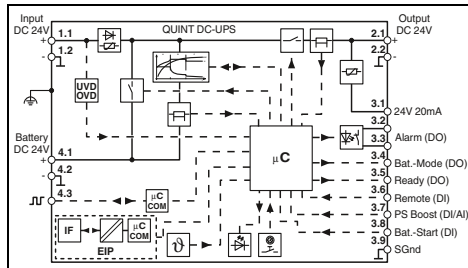
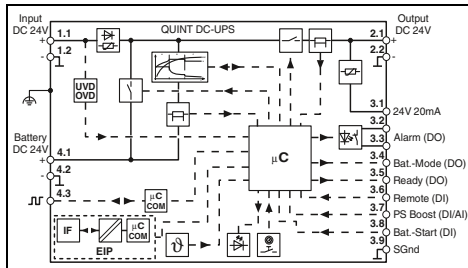
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### Technical data

18 V DC ... 30 V DC  
22 V DC / 30 V DC  
10.1 A / 16.3 A / 105 mA / 3.7 A  
245 W / 386 W / 2.6 W / 92 W

24 V DC ( $U_{OUT} = U_{IN} - 0.4$  V DC)  
18 V DC ... 30 V DC  
10 A / 12.5 A / 20 A (5 s) / 60 A (15 ms)  
240 W / 300 W / 480 W (5 s)

24 V DC ( $U_{OUT} = U_{BAT} - 0.4$  V DC)  
19 V DC ... 32 V DC  
10 A / 12.5 A / 20 A (5 s) / 60 A (15 ms)  
240 W / 300 W / 480 W (5 s)

$I_{U_0U}$   
24 V DC  
27.6 V DC  
3 A  
19.2 V DC  
VRLA, VRLA-WTR, LI-ION  
1.2 Ah ... 60 Ah  
Yes, 5 (observe line protection)

DC OK (green), Alarm (red), Bat.-Mode (yellow), SOC (red, green),  
Data (red, green)  
OptoMOS, switch contact (floating)  
2x DO, 2x DI, 1x DI or AI  
EtherNet/IP™

0.5 kg / 35 x 130 x 125 mm  
Screw connection / Push-in technology  
0.2 - 2.5 mm<sup>2</sup> / 0.2 - 2.5 mm<sup>2</sup> / 30 - 12  
0.2 - 1 mm<sup>2</sup> / 0.2 - 1 mm<sup>2</sup> / 24 - 16  
IP20 / III  
-25°C ... 70°C (> 60°C Derating: 2.5%/K)  
-40°C ... 85°C  
≤ 95% (at 25°C, non-condensing)

UL/C-UL Listed UL 61010-1, UL/C-UL Listed UL 61010-2-201,  
UL/C-UL Listed ANSI/ISA-12.12.01 Class I, Division 2,  
Groups A, B, C, D T4 (Hazardous Location)

### Ordering data

Type	Order No.	Pcs./Pkt.
QUINT4-UPS/24DC/24DC/10/EIP	2907069	1

### Technical data

18 V DC ... 30 V DC  
22 V DC / 30 V DC  
20.1 A / 31.2 A / 105 mA / 6.1 A  
475 W / 740 W / 2.6 W / 148 W

24 V DC ( $U_{OUT} = U_{IN} - 0.4$  V DC)  
18 V DC ... 30 V DC  
20 A / 25 A / 30 A (5 s) / 120 A (15 ms)  
480 W / 600 W / -

24 V DC ( $U_{OUT} = U_{BAT} - 0.4$  V DC)  
19 V DC ... 32 V DC  
20 A / 25 A / 30 A (5 s) / 120 A (15 ms)  
480 W / 600 W / -

$I_{U_0U}$   
24 V DC  
27.6 V DC  
5 A  
19.2 V DC  
VRLA, VRLA-WTR, LI-ION  
3 Ah ... 100 Ah  
Yes, 5 (observe line protection)

DC OK (green), Alarm (red), Bat.-Mode (yellow), SOC (red, green),  
Data (red, green)  
OptoMOS, switch contact (floating)  
2x DO, 2x DI, 1x DI or AI  
EtherNet/IP™

0.6 kg / 40 x 130 x 125 mm  
Screw connection / Push-in technology  
0.2 - 6 mm<sup>2</sup> / 0.2 - 4 mm<sup>2</sup> / 30 - 10  
0.2 - 1 mm<sup>2</sup> / 0.2 - 1 mm<sup>2</sup> / 24 - 16  
IP20 / III  
-25°C ... 70°C (> 60°C Derating: 2.5%/K)  
-40°C ... 85°C  
≤ 95% (at 25°C, non-condensing)

UL/C-UL Listed UL 61010-1, UL/C-UL Listed UL 61010-2-201,  
UL/C-UL Listed ANSI/ISA-12.12.01 Class I, Division 2,  
Groups A, B, C, D T4 (Hazardous Location)

### Ordering data

Type	Order No.	Pcs./Pkt.
QUINT4-UPS/24DC/24DC/20/EIP	2907074	1

### Technical data

18 V DC ... 30 V DC  
22 V DC / 30 V DC  
40.1 A / 51.2 A / 105 mA / 6.1 A  
967 W / 1122 W / 2.6 W / 148 W

24 V DC ( $U_{OUT} = U_{IN} - 0.5$  V DC)  
18 V DC ... 30 V DC  
40 A / 45 A / 60 A (5 s) / 215 A (15 ms)  
960 W / 1080 W / -

24 V DC ( $U_{OUT} = U_{BAT} - 0.5$  V DC)  
19 V DC ... 32 V DC  
40 A / 45 A / 60 A (5 s) / 215 A (15 ms)  
960 W / 1080 W / -

$I_{U_0U}$   
24 V DC  
27.6 V DC  
5 A  
19.2 V DC  
VRLA, VRLA-WTR, LI-ION  
7 Ah ... 100 Ah  
Yes, 5 (observe line protection)

DC OK (green), Alarm (red), Bat.-Mode (yellow), SOC (red, green),  
Data (red, green)  
OptoMOS, switch contact (floating)  
2x DO, 2x DI, 1x DI or AI  
EtherNet/IP™

0.7 kg / 47 x 130 x 125 mm  
Screw connection / Push-in technology  
0.5 - 16 mm<sup>2</sup> / 0.5 - 16 mm<sup>2</sup> / 8 - 6  
0.2 - 1 mm<sup>2</sup> / 0.2 - 1 mm<sup>2</sup> / 24 - 16  
IP20 / III  
-25°C ... 70°C (> 60°C Derating: 2.5%/K)  
-40°C ... 85°C  
≤ 95% (at 25°C, non-condensing)

UL/C-UL Listed UL 61010-1, UL/C-UL Listed UL 61010-2-201,  
UL/C-UL Listed ANSI/ISA-12.12.01 Class I, Division 2,  
Groups A, B, C, D T4 (Hazardous Location)

### Ordering data

Type	Order No.	Pcs./Pkt.
QUINT4-UPS/24DC/24DC/40/EIP	2907080	1

# Power supply units and UPS

## Uninterruptible power supplies

### QUINT UPS for DC applications

#### QUINT DC UPS, 24 V DC with EtherCAT® interface

The UPS modules for 5 to 40 A allow you to create a custom solution combining a power supply, UPS module, and energy storage device.

Easy integration into EtherCAT® networks:

- Via 2-port switch

Intelligent battery management:

- Automatic detection of battery capacities and technologies
- Maximizes the remaining service life of the energy storage device, thanks to an optimally adjusted charging characteristic
- The very powerful battery charger maximizes system availability

Extended load management:

Energy monitoring – monitoring of input and output voltages and the associated currents

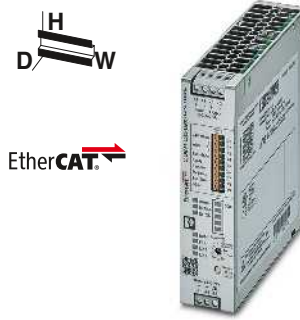
Cold restart function – UPS startup even without mains power

Substantial power reserve:

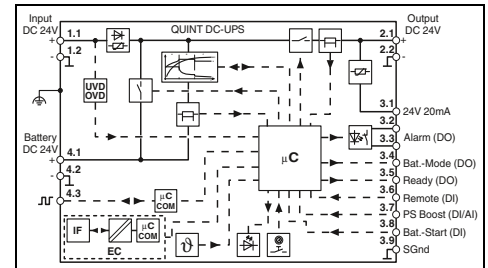
- Static boost up to 125% for a sustained period
- Dynamic boost up to 200% for 5 s
- SFB (Selective Fuse Breaking) Technology

Comprehensive signaling via LEDs and signal contacts:

- Load is being supplied by the energy storage device
- Energy storage device is being charged
- An alarm is present



Uninterruptible power supply, 24 V DC / 24 V DC, 5 A, EC

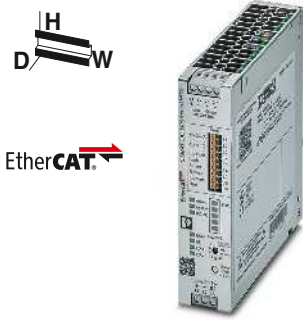


#### Technical data

<b>Input data</b>	18 V DC ... 30 V DC 22 V DC / 30 V DC 5.1 A / 8.3 A / 105 mA / 1.9 A Power consumption $P_N$ / $P_{Max}$ / $P_{No-Load}$ / $P_{Charge}$ 123 W / 213 W / 2.5 W / 44 W
<b>Output data (mains operation)</b>	24 V DC ( $U_{OUT} = U_{in} - 0.3$ V DC) 18 V DC ... 30 V DC ( $U_{OUT} = U_{in} - 0.3$ V DC) 5 A / 6.25 A / 10 A (5 s) / 30 A (15 ms) 120 W / 155 W / 240 W (5 s)
<b>Output data (battery operation)</b>	24 V DC ( $U_{OUT} = U_{BAT} - 0.3$ V DC) 19 V DC ... 32 V DC ( $U_{OUT} = U_{BAT} - 0.3$ V DC) 5 A / 6.25 A / 10 A (5 s) / 30 A (15 ms) 120 W / 150 W / 240 W (5 s)
<b>Energy storage</b>	$I_{U_0}$ 24 V DC 27.6 V DC max. 1.5 A 19.2 V DC VRLA, VRLA-WTR, LI-ION 0.8 Ah ... 30 Ah Yes, 5 (observe line protection)
<b>Signaling</b>	DC OK (green), Alarm (red), Bat.-Mode (yellow), SOC (red, green), Data (red, green) OptoMOS, switch contact (floating) 2x DO, 2x DI, 1x DI or AI EtherCAT®
<b>General data</b>	0.5 kg / 35 x 130 x 125 mm Screw connection / Push-in technology 0.2 - 2.5 mm <sup>2</sup> / 0.2 - 2.5 mm <sup>2</sup> / 30 - 12 0.2 - 1 mm <sup>2</sup> / 0.2 - 1 mm <sup>2</sup> / 24 - 16 IP20 / III -25°C ... 70°C (> 60°C Derating: 2.5%/K) -40°C ... 85°C ≤ 95% (at 25°C, non-condensing)
<b>Standards/regulations</b>	UL/C-UL Listed UL 61010-1, UL/C-UL Listed UL 61010-2-201, UL/C-UL Listed ANSI/ISA-12.12.01 Class 1, Division 2, Groups A, B, C, D T4 (Hazardous Location)

#### Ordering data

Description	Type	Order No.	Pcs./Pkt.
Power supply, uninterruptible	QUINT4-UPS/24DC/24DC/5/EC	2906996	1



EtherCAT

Uninterruptible power supply,  
24 V DC / 24 V DC, 10 A, EC



EtherCAT

Uninterruptible power supply,  
24 V DC / 24 V DC, 20 A, EC



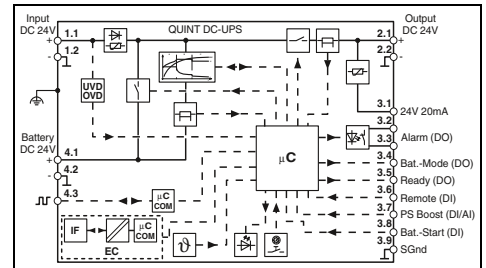
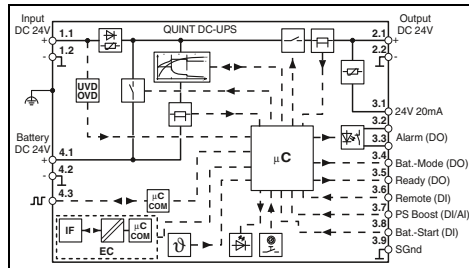
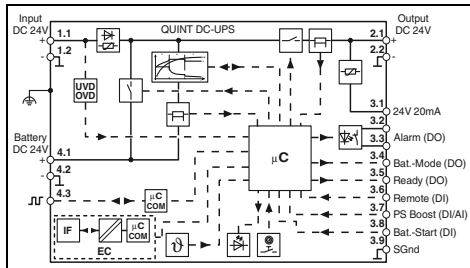
EtherCAT

Uninterruptible power supply,  
24 V DC / 24 V DC, 40 A, EC

ERC  
Ex:

ERC  
Ex:

ERC  
Ex:



### Technical data

### Technical data

### Technical data

18 V DC ... 30 V DC  
22 V DC / 30 V DC  
10.1 A / 16.3 A / 105 mA / 3.7 A  
245 W / 386 W / 2.6 W / 92 W

18 V DC ... 30 V DC  
22 V DC / 30 V DC  
20.1 A / 31.2 A / 105 mA / 6.1 A  
475 W / 740 W / 2.6 W / 148 W

18 V DC ... 30 V DC  
22 V DC / 30 V DC  
40.1 A / 51.2 A / 105 mA / 6.1 A  
967 W / 1122 W / 2.6 W / 148 W

24 V DC ( $U_{OUT} = U_{IN} - 0.4$  V DC)  
18 V DC ... 30 V DC  
10 A / 12.5 A / 20 A (5 s) / 60 A (15 ms)  
240 W / 300 W / 480 W (5 s)

24 V DC ( $U_{OUT} = U_{IN} - 0.4$  V DC)  
18 V DC ... 30 V DC  
20 A / 25 A / 30 A (5 s) / 120 A (15 ms)  
480 W / 600 W / -

24 V DC ( $U_{OUT} = U_{IN} - 0.5$  V DC)  
18 V DC ... 30 V DC  
40 A / 45 A / 60 A (5 s) / 215 A (15 ms)  
960 W / 1080 W / -

24 V DC ( $U_{OUT} = U_{BAT} - 0.4$  V DC)  
19 V DC ... 32 V DC  
10 A / 12.5 A / 20 A (5 s) / 60 A (15 ms)  
240 W / 300 W / 480 W (5 s)

24 V DC ( $U_{OUT} = U_{BAT} - 0.4$  V DC)  
19 V DC ... 32 V DC  
20 A / 25 A / 30 A (5 s) / 120 A (15 ms)  
480 W / 600 W / -

24 V DC ( $U_{OUT} = U_{BAT} - 0.5$  V DC)  
19 V DC ... 32 V DC  
40 A / 45 A / 60 A (5 s) / 215 A (15 ms)  
960 W / 1080 W / -

I<sub>0</sub>U  
24 V DC  
27.6 V DC  
3 A  
19.2 V DC  
VRLA, VRLA-WTR, LI-ION  
1.2 Ah ... 60 Ah  
Yes, 5 (observe line protection)

I<sub>0</sub>U  
24 V DC  
27.6 V DC  
5 A  
19.2 V DC  
VRLA, VRLA-WTR, LI-ION  
3 Ah ... 100 Ah  
Yes, 5 (observe line protection)

I<sub>0</sub>U  
24 V DC  
27.6 V DC  
5 A  
19.2 V DC  
VRLA, VRLA-WTR, LI-ION  
7 Ah ... 100 Ah  
Yes, 5 (observe line protection)

DC OK (green), Alarm (red), Bat.-Mode (yellow), SOC (red, green),  
Data (red, green)  
OptoMOS, switch contact (floating)  
2x DO, 2x DI, 1x DI or AI  
EtherCAT®

DC OK (green), Alarm (red), Bat.-Mode (yellow), SOC (red, green),  
Data (red, green)  
OptoMOS, switch contact (floating)  
2x DO, 2x DI, 1x DI or AI  
EtherCAT®

DC OK (green), Alarm (red), Bat.-Mode (yellow), SOC (red, green),  
Data (red, green)  
OptoMOS, switch contact (floating)  
2x DO, 2x DI, 1x DI or AI  
EtherCAT®

0.5 kg / 35 x 130 x 125 mm  
Screw connection / Push-in technology  
0.2 - 2.5 mm<sup>2</sup> / 0.2 - 2.5 mm<sup>2</sup> / 30 - 12  
0.2 - 1 mm<sup>2</sup> / 0.2 - 1 mm<sup>2</sup> / 24 - 16  
IP20 / III  
-25°C ... 70°C (> 60°C Derating: 2.5%/K)  
-40°C ... 85°C  
≤ 95% (at 25°C, non-condensing)

0.6 kg / 40 x 130 x 125 mm  
Screw connection / Push-in technology  
0.2 - 6 mm<sup>2</sup> / 0.2 - 4 mm<sup>2</sup> / 30 - 10  
0.2 - 1 mm<sup>2</sup> / 0.2 - 1 mm<sup>2</sup> / 24 - 16  
IP20 / III  
-25°C ... 70°C (> 60°C Derating: 2.5%/K)  
-40°C ... 85°C  
≤ 95% (at 25°C, non-condensing)

0.7 kg / 47 x 130 x 125 mm  
Screw connection / Push-in technology  
0.5 - 16 mm<sup>2</sup> / 0.5 - 16 mm<sup>2</sup> / 8 - 6  
0.2 - 1 mm<sup>2</sup> / 0.2 - 1 mm<sup>2</sup> / 24 - 16  
IP20 / III  
-25°C ... 70°C (> 60°C Derating: 2.5%/K)  
-40°C ... 85°C  
≤ 95% (at 25°C, non-condensing)

UL/C-UL Listed UL 61010-1, UL/C-UL Listed UL 61010-2-201,  
UL/C-UL Listed ANSI/ISA-12.12.01 Class I, Division 2,  
Groups A, B, C, D T4 (Hazardous Location)

UL/C-UL Listed UL 61010-1, UL/C-UL Listed UL 61010-2-201,  
UL/C-UL Listed ANSI/ISA-12.12.01 Class I, Division 2,  
Groups A, B, C, D T4 (Hazardous Location)

UL/C-UL Listed UL 61010-1, UL/C-UL Listed UL 61010-2-201,  
UL/C-UL Listed ANSI/ISA-12.12.01 Class I, Division 2,  
Groups A, B, C, D T4 (Hazardous Location)

### Ordering data

### Ordering data

### Ordering data

Type	Order No.	Pcs./Pkt.
QUINT4-UPS/24DC/24DC/10/EC	2907070	1

Type	Order No.	Pcs./Pkt.
QUINT4-UPS/24DC/24DC/20/EC	2907076	1

Type	Order No.	Pcs./Pkt.
QUINT4-UPS/24DC/24DC/40/EC	2907081	1



# Power supply units and UPS

## Uninterruptible power supplies

### QUINT UPS for DC applications

#### QUINT DC UPS, 24 V DC with USB interface

The UPS modules for 5 to 40 A allow you to create a custom solution combining a power supply, UPS module, and energy storage device.

Intelligent battery management:

- Automatic detection of battery capacities and technologies
- Maximizes the remaining service life of the energy storage device, thanks to an optimally adjusted charging characteristic
- The very powerful battery charger maximizes system availability

Extended load management:

Energy monitoring – monitoring of input and output voltages and the associated currents

PC shutdown function – reliable shutdown of the IPC in the event of mains failure without data loss, and autostart of the IPC when power returns

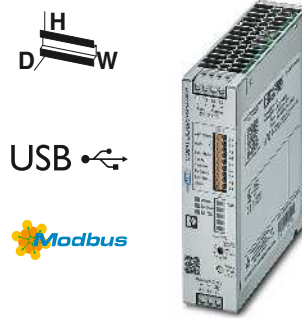
Cold restart function – UPS startup even without mains power

Substantial power reserve:

- Static boost up to 125% for a sustained period
- Dynamic boost up to 200% for 5 s
- SFB (Selective Fuse Breaking) Technology

Comprehensive signaling via LEDs and signal contacts:

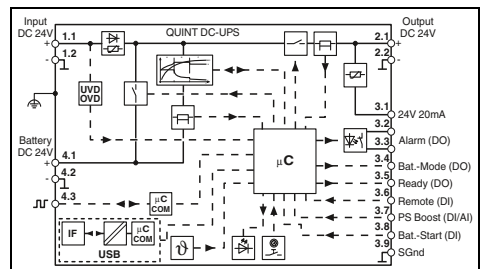
- Load is being supplied by the energy storage device
- Energy storage device is being charged
- An alarm is present



Uninterruptible power supply, 24 V DC / 24 V DC, 5 A, USB



Ex:

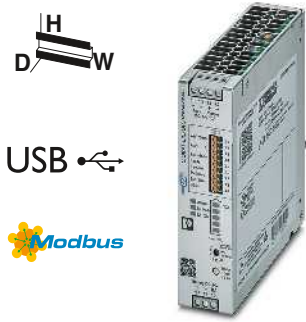


#### Technical data

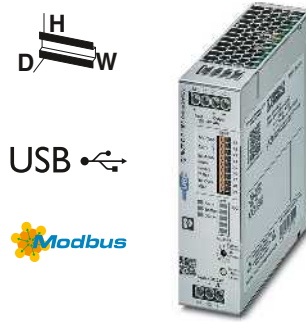
<b>Input data</b>	18 V DC ... 30 V DC 22 V DC / 30 V DC 5.1 A / 8.3 A / 45 mA / 1.8 A 121 W / 211 W / 1.1 W / 43 W
<b>Output data (mains operation)</b>	24 V DC ( $U_{OUT} = U_{IN} - 0.3 \text{ V DC}$ ) 18 V DC ... 30 V DC ( $U_{OUT} = U_{IN} - 0.3 \text{ V DC}$ ) 5 A / 6.25 A / 10 A (5 s) / 30 A (15 ms) 120 W / 155 W / 240 W (5 s)
<b>Output data (battery operation)</b>	24 V DC ( $U_{OUT} = U_{BAT} - 0.3 \text{ V DC}$ ) 19 V DC ... 32 V DC ( $U_{OUT} = U_{BAT} - 0.3 \text{ V DC}$ ) 5 A / 6.25 A / 10 A (5 s) / 30 A (15 ms) 120 W / 150 W / 240 W (5 s)
<b>Energy storage</b>	I <sub>U0</sub> 24 V DC 27.6 V DC max. 1.5 A 19.2 V DC VRLA, VRLA-WTR, LI-ION 0.8 Ah ... 30 Ah Yes, 5 (observe line protection)
<b>Signaling</b>	DC OK (green), Alarm (red), Bat.-Mode (yellow), SOC (red, green), Data (red, green) OptoMOS, switch contact (floating) 2x DO, 2x DI, 1x DI or AI USB (Modbus/RTU)
<b>General data</b>	0.5 kg / 35 x 130 x 125 mm Screw connection / Push-in technology 0.2 - 2.5 mm <sup>2</sup> / 0.2 - 2.5 mm <sup>2</sup> / 30 - 12 0.2 - 1 mm <sup>2</sup> / 0.2 - 1 mm <sup>2</sup> / 24 - 16 IP20 / III -25°C ... 70°C (> 60°C Derating: 2.5%/K) -40°C ... 85°C ≤ 95% (at 25°C, non-condensing)
<b>Standards/regulations</b>	UL/C-UL Listed UL 61010-1, UL/C-UL Listed UL 61010-2-201, UL/C-UL Listed ANSI/ISA-12.12.01 Class 1, Division 2, Groups A, B, C, D T4 (Hazardous Location)

#### Ordering data

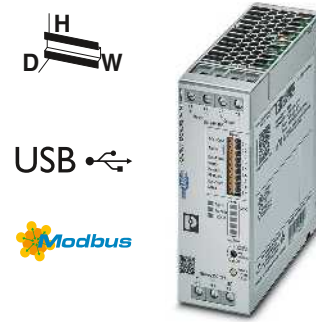
Description	Type	Order No.	Pcs./Pkt.
Power supply, uninterruptible	QUINT4-UPS/24DC/24DC/5/USB	2906991	1



Uninterruptible power supply,  
24 V DC / 24 V DC, 10 A, USB



Uninterruptible power supply,  
24 V DC / 24 V DC, 20 A, USB



Uninterruptible power supply,  
24 V DC / 24 V DC, 40 A, USB



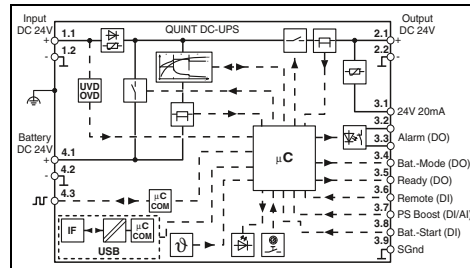
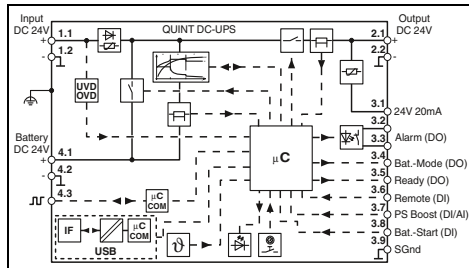
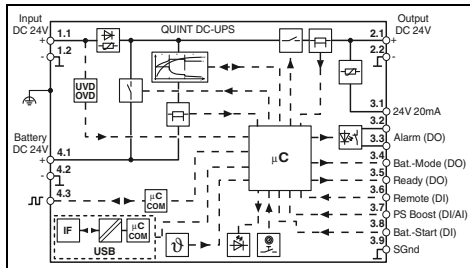
Ex:



Ex:



Ex:



### Technical data

18 V DC ... 30 V DC  
22 V DC / 30 V DC  
10.1 A / 16.3 A / 48 mA / 3.5 A  
241 W / 384 W / 1.2 W / 90 W

24 V DC ( $U_{OUT} = U_{IN} - 0.4$  V DC)  
18 V DC ... 30 V DC  
10 A / 12.5 A / 20 A (5 s) / 60 A (15 ms)  
240 W / 300 W / 480 W (5 s)

24 V DC ( $U_{OUT} = U_{BAT} - 0.4$  V DC)  
19 V DC ... 32 V DC  
10 A / 12.5 A / 20 A (5 s) / 60 A (15 ms)  
240 W / 300 W / 480 W (5 s)

$I_{U_0U}$   
24 V DC  
27.6 V DC  
3 A  
19.2 V DC  
VRLA, VRLA-WTR, LI-ION  
1.2 Ah ... 60 Ah  
Yes, 5 (observe line protection)

DC OK (green), Alarm (red), Bat.-Mode (yellow), SOC (red, green),  
Data (red, green)  
OptoMOS, switch contact (floating)  
2x DO, 2x DI, 1x DI or AI  
USB (Modbus/RTU)

0.5 kg / 35 x 130 x 125 mm  
Screw connection / Push-in technology  
0.2 - 2.5 mm<sup>2</sup> / 0.2 - 2.5 mm<sup>2</sup> / 30 - 12  
0.2 - 1 mm<sup>2</sup> / 0.2 - 1 mm<sup>2</sup> / 24 - 16  
IP20 / III  
-25°C ... 70°C (> 60°C Derating: 2.5%/K)  
-40°C ... 85°C  
≤ 95% (at 25°C, non-condensing)

UL/C-UL Listed UL 61010-1, UL/C-UL Listed UL 61010-2-201,  
UL/C-UL Listed ANSI/ISA-12.12.01 Class I, Division 2,  
Groups A, B, C, D T4 (Hazardous Location)

### Technical data

18 V DC ... 30 V DC  
22 V DC / 30 V DC  
20.1 A / 31.2 A / 50 mA / 6.1 A  
474 W / 738 W / 1.3 W / 145 W

24 V DC ( $U_{OUT} = U_{IN} - 0.4$  V DC)  
18 V DC ... 30 V DC  
20 A / 25 A / 30 A (5 s) / 120 A (15 ms)  
480 W / 600 W / -

24 V DC ( $U_{OUT} = U_{BAT} - 0.4$  V DC)  
19 V DC ... 32 V DC  
20 A / 25 A / 30 A (5 s) / 120 A (15 ms)  
480 W / 600 W / -

$I_{U_0U}$   
24 V DC  
27.6 V DC  
5 A  
19.2 V DC  
VRLA, VRLA-WTR, LI-ION  
3 Ah ... 100 Ah  
Yes, 5 (observe line protection)

DC OK (green), Alarm (red), Bat.-Mode (yellow), SOC (red, green),  
Data (red, green)  
OptoMOS, switch contact (floating)  
2x DO, 2x DI, 1x DI or AI  
USB (Modbus/RTU)

0.6 kg / 40 x 130 x 125 mm  
Screw connection / Push-in technology  
0.2 - 6 mm<sup>2</sup> / 0.2 - 4 mm<sup>2</sup> / 30 - 10  
0.2 - 1 mm<sup>2</sup> / 0.2 - 1 mm<sup>2</sup> / 24 - 16  
IP20 / III  
-25°C ... 70°C (> 60°C Derating: 2.5%/K)  
-40°C ... 85°C  
≤ 95% (at 25°C, non-condensing)

UL/C-UL Listed UL 61010-1, UL/C-UL Listed UL 61010-2-201,  
UL/C-UL Listed ANSI/ISA-12.12.01 Class I, Division 2,  
Groups A, B, C, D T4 (Hazardous Location)

### Technical data

18 V DC ... 30 V DC  
22 V DC / 30 V DC  
40.1 A / 51.2 A / 50 mA / 6.1 A  
965 W / 1120 W / 1.3 W / 147 W

24 V DC ( $U_{OUT} = U_{IN} - 0.5$  V DC)  
18 V DC ... 30 V DC  
40 A / 45 A / 60 A (5 s) / 215 A (15 ms)  
960 W / 1080 W / -

24 V DC ( $U_{OUT} = U_{BAT} - 0.5$  V DC)  
19 V DC ... 32 V DC  
40 A / 45 A / 60 A (5 s) / 215 A (15 ms)  
960 W / 1080 W / -

$I_{U_0U}$   
24 V DC  
27.6 V DC  
5 A  
19.2 V DC  
VRLA, VRLA-WTR, LI-ION  
7 Ah ... 100 Ah  
Yes, 5 (observe line protection)

DC OK (green), Alarm (red), Bat.-Mode (yellow), SOC (red, green),  
Data (red, green)  
OptoMOS, switch contact (floating)  
2x DO, 2x DI, 1x DI or AI  
USB (Modbus/RTU)

0.7 kg / 47 x 130 x 125 mm  
Screw connection / Push-in technology  
0.5 - 16 mm<sup>2</sup> / 0.5 - 16 mm<sup>2</sup> / 8 - 6  
0.2 - 1 mm<sup>2</sup> / 0.2 - 1 mm<sup>2</sup> / 24 - 16  
IP20 / III  
-25°C ... 70°C (> 60°C Derating: 2.5%/K)  
-40°C ... 85°C  
≤ 95% (at 25°C, non-condensing)

UL/C-UL Listed UL 61010-1, UL/C-UL Listed UL 61010-2-201,  
UL/C-UL Listed ANSI/ISA-12.12.01 Class I, Division 2,  
Groups A, B, C, D T4 (Hazardous Location)

### Ordering data

Type	Order No.	Pcs./Pkt.
QUINT4-UPS/24DC/24DC/10/USB	2907067	1

### Ordering data

Type	Order No.	Pcs./Pkt.
QUINT4-UPS/24DC/24DC/20/USB	2907072	1

### Ordering data

Type	Order No.	Pcs./Pkt.
QUINT4-UPS/24DC/24DC/40/USB	2907078	1

# Power supply units and UPS

## Uninterruptible power supplies

### QUINT UPS for DC applications

#### QUINT DC UPS, 24 V DC

The UPS modules for 5 to 40 A allow you to create a custom solution combining a power supply, UPS module, and energy storage device.

Intelligent battery management:

- Automatic detection of battery capacities and technologies
- Maximizes the remaining service life of the energy storage device, thanks to an optimally adjusted charging characteristic
- The very powerful battery charger maximizes system availability

Extended load management:

Energy monitoring – monitoring of input and output voltages and the associated currents

PC shutdown function – reliable shutdown of the IPC in the event of mains failure without data loss, and autostart of the IPC when power returns

Cold restart function – UPS startup even without mains power

Substantial power reserve:

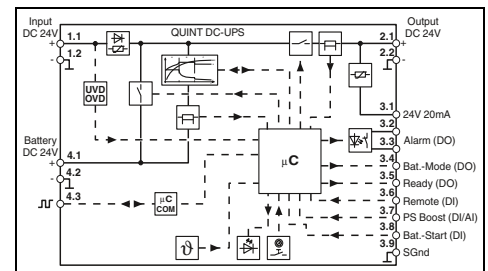
- Static boost up to 125% for a sustained period
- Dynamic boost up to 200% for 5 s
- SFB (Selective Fuse Breaking) Technology

Comprehensive signaling via LEDs and signal contacts:

- Load is being supplied by the energy storage device
- Energy storage device is being charged
- An alarm is present



Uninterruptible power supply,  
24 V DC / 24 V DC, 5 A



#### Technical data

<b>Input data</b>	18 V DC ... 30 V DC 22 V DC / 30 V DC 5.1 A / 8.3 A / 45 mA / 1.8 A 121 W / 211 W / 1.1 W / 43 W		
<b>Output data (mains operation)</b>	24 V DC ( $U_{OUT} = U_{IN} - 0.3 \text{ V DC}$ ) 18 V DC ... 30 V DC ( $U_{OUT} = U_{IN} - 0.3 \text{ V DC}$ ) 5 A / 6.25 A / 10 A (5 s) / 30 A (15 ms) 120 W / 150 W / 240 W (5 s)		
<b>Output data (battery operation)</b>	24 V DC ( $U_{OUT} = U_{BAT} - 0.3 \text{ V DC}$ ) 19 V DC ... 28 V DC ( $U_{OUT} = U_{BAT} - 0.3 \text{ V DC}$ ) 5 A / 6.25 A / 10 A (5 s) / 30 A (15 ms) 120 W / 150 W / 240 W (5 s)		
<b>Energy storage</b>	$I_{U_0}$ 24 V DC 27.6 V DC max. 1.5 A 19.2 V DC VRLA, VRLA-WTR, LI-ION 0.8 Ah ... 40 Ah Yes, 5 (observe line protection)		
<b>Signaling</b>	DC OK (green), Alarm (red), Bat.-Mode (yellow), SOC (red, green), Data (red, green) OptoMOS, switch contact (floating) 2x DO, 2x DI, 1x DI or AI -		
<b>General data</b>	0.5 kg / 35 x 130 x 125 mm Screw connection / Push-in technology 0.2 - 2.5 mm <sup>2</sup> / 0.2 - 2.5 mm <sup>2</sup> / 30 - 12 0.2 - 1 mm <sup>2</sup> / 0.2 - 1 mm <sup>2</sup> / 24 - 16 IP20 / III -25°C ... 70°C (> 60°C Derating: 2.5%/K) -40°C ... 85°C ≤ 95% (at 25°C, non-condensing)		
<b>Standards/regulations</b>	UL/C-UL Listed UL 61010-1, UL/C-UL Listed UL 61010-2-201, UL/C-UL Listed ANSI/ISA-12.12.01 Class 1, Division 2, Groups A, B, C, D T4 (Hazardous Location)		
<b>Ordering data</b>			
<b>Description</b>	<b>Type</b>	<b>Order No.</b>	<b>Pcs./Pkt.</b>
<b>Power supply, uninterruptible</b>	<b>QUINT4-UPS/24DC/24DC/5</b>	<b>2906990</b>	<b>1</b>



Uninterruptible power supply,  
24 V DC / 24 V DC, 10 A



Uninterruptible power supply,  
24 V DC / 24 V DC, 20 A



Uninterruptible power supply,  
24 V DC / 24 V DC, 40 A



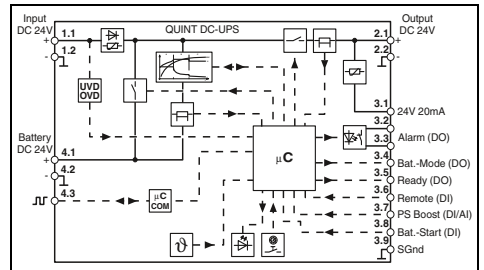
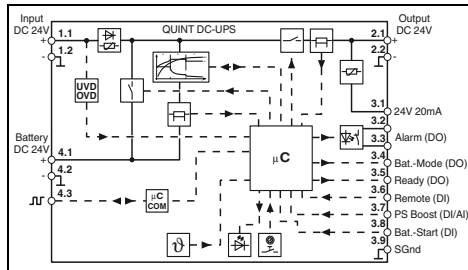
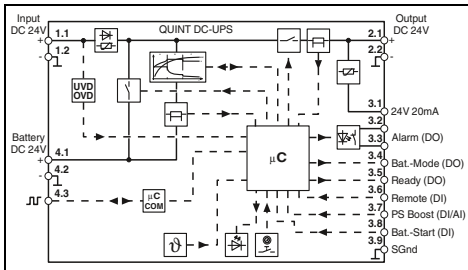
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Ex:



### Technical data

18 V DC ... 30 V DC  
22 V DC / 30 V DC  
10.1 A / 16.2 A / 48 mA / 3.5 A  
241 W / 384 W / 1.2 W / 90 W

24 V DC ( $U_{OUT} = U_{IN} - 0.4$  V DC)  
18 V DC ... 30 V DC ( $U_{OUT} = U_{IN} - 0.4$  V DC)  
10 A / 12.5 A / 20 A (5 s) / 60 A (15 ms)  
240 W / 300 W / 480 W (5 s)

24 V DC ( $U_{OUT} = U_{BAT} - 0.4$  V DC)  
19 V DC ... 28 V DC ( $U_{OUT} = U_{BAT} - 0.4$  V DC)  
10 A / 12.5 A / 20 A (5 s) / 60 A (15 ms)  
240 W / 300 W / 480 W (5 s)

I<sub>U0</sub>U  
24 V DC  
27.6 V DC  
max. 3 A  
19.2 V DC  
VRLA, VRLA-WTR, LI-ION  
1.2 Ah ... 80 Ah  
Yes, 5 (observe line protection)

DC OK (green), Alarm (red), Bat.-Mode (yellow), SOC (red, green),  
Data (red, green)  
OptoMOS, switch contact (floating)  
2x DO, 2x DI, 1x DI or AI

0.5 kg / 35 x 130 x 125 mm  
Screw connection / Push-in technology  
0.2 - 2.5 mm<sup>2</sup> / 0.2 - 2.5 mm<sup>2</sup> / 30 - 12  
0.2 - 1 mm<sup>2</sup> / 0.2 - 1 mm<sup>2</sup> / 24 - 16  
IP20 / III  
-25°C ... 70°C (> 60°C Derating: 2.5%/K)  
-40°C ... 85°C  
≤ 95% (at 25°C, non-condensing)

UL/C-UL Listed UL 61010-1, UL/C-UL Listed UL 61010-2-201,  
UL/C-UL Listed ANSI/ISA-12.12.01 Class I, Division 2,  
Groups A, B, C, D T4 (Hazardous Location)

### Technical data

18 V DC ... 30 V DC  
22 V DC / 30 V DC  
20.1 A / 31.4 A / 50 mA / 6.1 A  
474 W / 738 W / 1.3 W / 145 W

24 V DC ( $U_{OUT} = U_{IN} - 0.4$  V DC)  
18 V DC ... 30 V DC ( $U_{OUT} = U_{IN} - 0.4$  V DC)  
20 A / 25 A / 30 A (5 s) / 120 A (15 ms)  
480 W / 600 W / 720 W (5 s)

24 V DC ( $U_{OUT} = U_{BAT} - 0.4$  V DC)  
19 V DC ... 28 V DC ( $U_{OUT} = U_{BAT} - 0.4$  V DC)  
20 A / 25 A / 30 A (5 s) / 120 A (15 ms)  
480 W / 600 W / 720 W (5 s)

I<sub>U0</sub>U  
24 V DC  
27.6 V DC  
max. 5 A  
19.2 V DC  
VRLA, VRLA-WTR, LI-ION  
3 Ah ... 135 Ah  
Yes, 5 (observe line protection)

DC OK (green), Alarm (red), Bat.-Mode (yellow), SOC (red, green),  
Data (red, green)  
OptoMOS, switch contact (floating)  
2x DO, 2x DI, 1x DI or AI

0.6 kg / 40 x 130 x 125 mm  
Screw connection / Push-in technology  
0.2 - 6 mm<sup>2</sup> / 0.2 - 4 mm<sup>2</sup> / 30 - 10  
0.2 - 1 mm<sup>2</sup> / 0.2 - 1 mm<sup>2</sup> / 24 - 16  
IP20 / III  
-25°C ... 70°C (> 60°C Derating: 2.5%/K)  
-40°C ... 85°C  
≤ 95% (at 25°C, non-condensing)

UL/C-UL Listed UL 61010-1, UL/C-UL Listed UL 61010-2-201,  
UL/C-UL Listed ANSI/ISA-12.12.01 Class I, Division 2,  
Groups A, B, C, D T4 (Hazardous Location)

### Technical data

18 V DC ... 30 V DC  
22 V DC / 30 V DC  
40.1 A / 51.2 A / 50 mA / 6.1 A  
965 W / 1120 W / 1.3 W / 147 W

24 V DC ( $U_{OUT} = U_{IN} - 0.5$  V DC)  
18 V DC ... 30 V DC  
40 A / 45 A / 60 A (5 s) / 215 A (15 ms)  
960 W / 1080 W / -

24 V DC ( $U_{OUT} = U_{BAT} - 0.5$  V DC)  
19 V DC ... 32 V DC  
40 A / 45 A / 60 A (5 s) / 215 A (15 ms)  
960 W / 1080 W / -

I<sub>U0</sub>U  
24 V DC  
27.6 V DC  
max. 5 A  
19.2 V DC  
VRLA, VRLA-WTR, LI-ION  
7 Ah ... 135 Ah  
Yes, 5 (observe line protection)

DC OK (green), Alarm (red), Bat.-Mode (yellow), SOC (red, green),  
Data (red, green)  
OptoMOS, switch contact (floating)  
2x DO, 2x DI, 1x DI or AI

0.7 kg / 47 x 130 x 125 mm  
Screw connection / Push-in technology  
0.5 - 16 mm<sup>2</sup> / 0.5 - 16 mm<sup>2</sup> / 8 - 6  
0.2 - 1 mm<sup>2</sup> / 0.2 - 1 mm<sup>2</sup> / 24 - 16  
IP20 / III  
-25°C ... 70°C (> 60°C Derating: 2.5%/K)  
-40°C ... 85°C  
≤ 95% (at 25°C, non-condensing)

UL/C-UL Listed UL 61010-1, UL/C-UL Listed UL 61010-2-201,  
UL/C-UL Listed ANSI/ISA-12.12.01 Class I, Division 2,  
Groups A, B, C, D T4 (Hazardous Location)

### Ordering data

Type	Order No.	Pcs./Pkt.
QUINT4-UPS/24DC/24DC/10	2907066	1

### Ordering data

Type	Order No.	Pcs./Pkt.
QUINT4-UPS/24DC/24DC/20	2907071	1

### Ordering data

Type	Order No.	Pcs./Pkt.
QUINT4-UPS/24DC/24DC/40	2907077	1

# Power supply units and UPS

## Uninterruptible power supplies

### QUINT UPS for DC applications with dual output voltage

The UPS module for two output voltages, 12 and 24 V DC, allows you to create a custom solution combining a power supply, UPS module, and energy storage device.

- Flexible and space-saving, thanks to two output voltages in one device

Optimum use of the buffer time and preventive monitoring of the energy storage device:

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

Substantial power reserve:

- For mains and battery operation
- Power Boost static power reserve
- Dynamic power reserve with SFB (Selective Fuse Breaking) Technology

Extensive signaling and parameterization:

- Floating relay contacts
- Data port (Modbus/RTU)
- Parameterization with memory module

#### Notes:

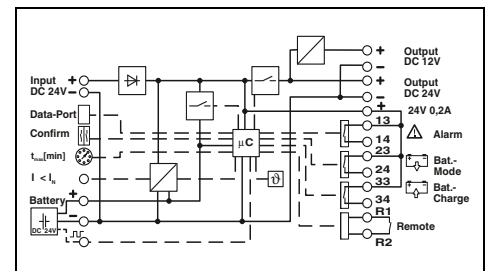
The buffer time associated with your solution is dependent on the load current. Exact details for each uninterruptible power supply can be found on page 315.



IQ Technology  
Designed by PHOENIX CONTACT



Uninterruptible power supply,  
24 V DC/12 V DC, 5 A and 24 V DC, 10 A



#### Technical data

Input data	24 V DC
Input voltage	18 V DC ... 30 V DC
Input voltage range	16 A
Max. current consumption	12 V DC
Output data (mains operation)	24 V DC
Nominal output voltage	12 V DC
Output voltage range	18 V DC ... 30 V DC ( $U_{OUT} = U_{IN} - 0.5 \text{ V DC}$ )
Efficiency (typ.)	> 93% (Mains operation, with charged energy storage)
Output current with convection cooling ( $P_{max} = P_{12V} + P_{24V} = 360 \text{ W}$ )	> 98% (Mains operation, with charged energy storage)
- Nominal output current $I_N$ (sustained period)	5 A (-25°C ... 60°C)
- SFB Technology (15 ms)	10 A (-25°C ... 60°C)
- Power Boost $I_{Boost}$ (sustained period)	-
Output data (battery operation)	7.5 A (-25°C ... 40°C)
Nominal output voltage	12 V DC
Output voltage range	24 V DC
Output current with convection cooling ( $P_{max} = P_{12V} + P_{24V} = 360 \text{ W}$ )	12 V DC
- Nominal output current $I_N$ (sustained period)	24 V DC
- SFB Technology (15 ms)	19.2 V DC ... 27.6 V DC ( $U_{OUT} = U_{BAT} - 0.5 \text{ V DC}$ )
- Power Boost $I_{Boost}$ (sustained period)	5 A (-25°C ... 60°C)
Energy storage	10 A (-25°C ... 60°C)
Nominal voltage $U_N$	24 V DC
End-of-charge voltage	24 V DC (temperature compensated)
Nominal capacity range	1.3 Ah ... 140 Ah
Max. charging current	0.2 A ... 2.88 A
Signaling	LED, relay contact, interface/software
Signaling	IFS (Interface system data port)
Interfaces	
General data	
Weight / Dimensions W x H x D	0.6 kg / 35 x 130 x 125 mm
Connection method	Plug-in screw connection
Input/output connection data rigid / flexible / AWG	0.2 - 2.5 mm <sup>2</sup> / 0.2 - 2.5 mm <sup>2</sup> / 16 - 12
Signal connection data rigid / flexible / AWG	0.2 - 2.5 mm <sup>2</sup> / 0.2 - 2.5 mm <sup>2</sup> / 24 - 12
Degree of protection / Protection class	IP20 / III
Ambient temperature (operation)	-25°C ... 70°C
Derating	60°C ... 70°C (2.5%/K)
Standards/regulations	
UL approvals	UL Listed UL 508, UL/C-UL Recognized UL 60950-1

#### Ordering data

Description	Type	Order No.	Pcs./Pkt.
Power supply, uninterruptible	QUINT-UPS/ 24DC/12DC/5/24DC/10	2320461	1