

# Uninterruptible power supply - QUINT-UPS/ 24DC/ 24DC/40 - 2320241

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Uninterruptible power supply with IQ technology for DIN rail mounting, input: 24 V DC, output: 24 V DC/40 A, including mounted universal DIN rail adapter UTA 107/30

## Product Description

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

## Your advantages

- ✓ Easy handling thanks to automatic battery detection, tool-free battery replacement during operation, and communication via the IFS interface
- ✓ Optimum use of the buffer time and preventive monitoring of the energy storage
- ✓ Rapid battery charging
- ✓ Comprehensive signaling and parameterization
- ✓ Fast tripping of standard circuit breakers with SFB (selective fuse breaking) technology
- ✓ Reliable starting of difficult loads with the static POWER BOOST power reserve with up to 1.5 times the nominal current permanently



## Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4046356554121
Weight per Piece (excluding packing)	870.000 g
Custom tariff number	85371091
Country of origin	China

## Technical data

### Dimensions

Width	47 mm
Height	130 mm
Depth	125 mm
Width with alternative assembly	123 mm
Height with alternative assembly	130 mm

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## Technical data

### Dimensions

Depth with alternative assembly	51 mm
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### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	≤ 95 % (25 °C, non-condensing)
Climatic class	3K3 (in acc. with EN 60721)

### Input data

Input voltage	24 V DC
Nominal input voltage	24 V DC
Input voltage range	18 V DC ... 30 V DC
Current consumption (maximum)	51.9 A (maximum, mains operation)
Current consumption (charging process)	6.9 A (Charging, mains operation)
Fixed backup threshold	≤ 22 V DC
Variable connect threshold	1 V/0.1 s

### Output data (24 V DC mains operation)

Nominal output voltage	24 V DC
Output voltage range (depends on the input voltage)	18 V DC ... 30 V DC
Nominal output current (I <sub>N</sub> )	40 A (-25 °C ... 50 °C)
POWER BOOST (I <sub>Boost</sub> )	45 A (-25 °C ... 40 °C)
Selective Fuse Breaking (I <sub>SFB</sub> )	215 A (-25 °C ... 60 °C)

### Output data (24 V DC battery operation)

Nominal output voltage	24 V DC
Output voltage range (depends on the input voltage)	19.2 V DC ... 27.6 V DC (U <sub>OUT</sub> = U <sub>BAT</sub> - 0.5 V DC)
Nominal output current (I <sub>N</sub> )	40 A (-25 °C ... 60 °C)
POWER BOOST (I <sub>Boost</sub> )	45 A (-25 °C ... 40 °C)
Selective Fuse Breaking (I <sub>SFB</sub> )	215 A (-25 °C ... 60 °C)

### General output data

Efficiency	> 99 % (Mains operation, with charged energy storage)
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### General

IQ technology	Yes
Net weight	0.7 kg
Protection class	III
MTBF (IEC 61709, SN 29500)	> 500000 h (40 °C)
Mounting position	horizontal DIN rail NS 35, EN 60715
Assembly instructions	alignable: horizontal 5 mm, vertical 50 mm

### Connection data, input

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## Technical data

### Connection data, input

Connection method	Screw connection
Conductor cross section solid min.	0.5 mm <sup>2</sup>
Conductor cross section solid max.	16 mm <sup>2</sup>
Conductor cross section flexible min.	0.5 mm <sup>2</sup>
Conductor cross section flexible max.	16 mm <sup>2</sup>
Conductor cross section AWG min.	8
Conductor cross section AWG max.	6
Stripping length	10 mm
Screw thread	M4

### Connection data, output

Connection method	Screw connection
Conductor cross section solid min.	0.5 mm <sup>2</sup>
Conductor cross section solid max.	16 mm <sup>2</sup>
Conductor cross section flexible min.	0.5 mm <sup>2</sup>
Conductor cross section flexible max.	16 mm <sup>2</sup>
Conductor cross section AWG min.	8
Conductor cross section AWG max.	6
Stripping length	10 mm
Screw thread	M4

### Connection data for signaling

Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	4 mm <sup>2</sup>
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Screw thread	M4

### Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Noise immunity	EN 61000-6-2:2005
Connection in acc. with standard	CUL
Standards/regulations	EN 61000-4-2
Contact discharge	4 kV (Test Level 2)
Standards/regulations	EN 61000-4-3
Frequency range	80 MHz ... 1 GHz
Test field strength	10 V/m
Frequency range	1.4 GHz ... 2 GHz
Test field strength	3 V/m
Standards/regulations	EN 61000-4-4

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## Technical data

### Standards and Regulations

Comments	Criterion B
Standards/regulations	EN 61000-6-3
	EN 61000-4-6
Frequency range	0.15 MHz ... 80 MHz
Voltage	10 V (Test Level 3)
Low Voltage Directive	Conformance with LV directive 2006/95/EC
Standard - Electrical safety	EN 60950-1/VDE 0805 (SELV)
Standard – Electronic equipment for use in electrical power installations and their assembly into electrical power installations	EN 50178/VDE 0160 (PELV)
UL approvals	UL Listed UL 508
	UL/C-UL Recognized UL 60950-1
	UL ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D (Hazardous Location)
Shock	18 ms, 30g, in each space direction (according to IEC 60068-2-27)
Vibration (operation)	< 15 Hz, amplitude ±2.5 mm (according to IEC 60068-2-6)
	15 Hz ... 150 Hz, 2.3g t <sub>v</sub> = 90 min.
Rail applications	EN 50121-4

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 25;
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Classifications

### eCl@ss

eCl@ss 4.0	27040702
eCl@ss 4.1	27040603
eCl@ss 5.0	27040603
eCl@ss 5.1	27040600
eCl@ss 6.0	27040600
eCl@ss 7.0	27040603
eCl@ss 8.0	27040603
eCl@ss 9.0	27040705

### ETIM

ETIM 3.0	EC001039
ETIM 4.0	EC000382
ETIM 5.0	EC000382
ETIM 6.0	EC000382
ETIM 7.0	EC000382

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## Classifications

### UNSPSC

UNSPSC 6.01	30211510
UNSPSC 7.0901	39121011
UNSPSC 11	39121011
UNSPSC 12.01	39121011
UNSPSC 13.2	39121011

## Approvals

### Approvals


#### Approvals


DNV GL / PRS / BV / LR / ABS / UL Listed / UL Recognized / cUL Recognized / cUL Listed / EAC / EAC / UL Recognized / LR / UL Listed / cUL Listed / cUL Recognized / ABS / PRS / EAC / DNV GL / BV / EAC

#### Ex Approvals

UL Listed / cUL Listed / UL Listed / cUL Listed / cULus Listed


### Approval details

DNV GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	TAA0000265
Nominal voltage UN	500 V		
Nominal current IN	41 A		
mm <sup>2</sup> /AWG/kcmil	6		

PRS		<a href="http://www.prs.pl/">http://www.prs.pl/</a>	TE/2103/880590/16
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BV		<a href="http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials">http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials</a>	41516/A0 BV
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LR		<a href="http://www.lr.org/en">http://www.lr.org/en</a>	17/20032
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ABS		<a href="http://www.eagle.org/eagleExternalPortalWEB/">http://www.eagle.org/eagleExternalPortalWEB/</a>	15-GD1438179-PDA
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## Approvals

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 123528
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UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 211944
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cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 211944
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cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 123528
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EAC			EAC-Zulassung
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UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 211944
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LR		<a href="http://www.lr.org/en">http://www.lr.org/en</a>	17/20032
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UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 123528
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cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 123528
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## Approvals

cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 211944
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ABS		<a href="http://www.eagle.org/eagleExternalPortalWEB/">http://www.eagle.org/eagleExternalPortalWEB/</a>	15-GD1438179-PDA
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PRS		<a href="http://www.prs.pl/">http://www.prs.pl/</a>	TE/2103/880590/16
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EAC			RU C- DE.A*30.B.01082
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DNV GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	TAA0000265
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Nominal voltage UN	500 V
Nominal current IN	41 A
mm²/AWG/kcmil	6

BV		<a href="http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials">http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials</a>	41516/A0 BV
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EAC			RU C- DE.A*30.B.01082
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## Accessories

### Accessories

#### Assembly adapter

Assembly adapters - QUINT-PS-ADAPTERS7/1 - 2938196



Assembly adapter for QUINT-PS... power supply on S7-300 rail

# Uninterruptible power supply - QUINT-UPS/ 24DC/ 24DC/40 - 2320241

## Accessories

Assembly adapters - UWA 182/52 - 2938235



Universal wall adapter for securely mounting the device in the event of strong vibrations. The device is screwed directly onto the mounting surface. The universal wall adapter is attached on the top/bottom.

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Assembly adapters - UTA 107/30 - 2320089



Universal DIN rail adapter

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## Battery unit

Energy storage - UPS-BAT/VRLA/24DC/7.2AH - 2320319



Energy storage device, lead AGM, VRLA technology, 24 V DC, 7.2 Ah, tool-free battery replacement, automatic detection, and communication with QUINT UPS-IQ

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Energy storage - UPS-BAT/VRLA/24DC/12AH - 2320322



Energy storage device, lead AGM, VRLA technology, 24 V DC, 12 Ah, tool-free battery replacement, automatic detection, and communication with QUINT UPS-IQ

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Energy storage - UPS-BAT/VRLA/24DC/38AH - 2320335



Energy storage device, lead AGM, VRLA technology, 24 V DC, 38 Ah, automatic detection, and communication with QUINT UPS-IQ



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### Accessories

#### Energy storage - UPS-BAT/VRLA-WTR/24DC/13AH - 2320416



Energy storage device, lead AGM, VRLA technology, 24 V DC, 13 Ah, tool-free battery replacement, automatic detection, and communication with QUINT UPS-IQ

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#### Energy storage - UPS-BAT/VRLA-WTR/24DC/26AH - 2320429



Energy storage device, lead AGM, VRLA technology, 24 V DC, 26 Ah, tool-free battery replacement, automatic detection, and communication with QUINT UPS-IQ

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#### Energy storage - UPS-BAT/LI-ION/24DC/120WH - 2320351



Energy storage device, LI-ION technology, 24 V DC, 120 Wh, for ambient temperatures of -20°C ... 60°C, automatic detection and communication with QUINT UPS-IQ

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#### Energy storage - UPS-CAP/24DC/10A/10KJ - 2320377



Maintenance-free energy storage based on double-layer capacitor, 24 V DC, 10 kJ, automatic detection and communication with QUINT UPS-IQ

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#### Energy storage - UPS-CAP/24DC/20A/20KJ - 2320380



Maintenance-free energy storage based on double-layer capacitor, 24 V DC, 20 kJ, automatic detection and communication with QUINT UPS-IQ

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### Data cable preassembled

# Uninterruptible power supply - QUINT-UPS/ 24DC/ 24DC/40 - 2320241

## Accessories

Data cable - IFS-RS232-DATACABLE - 2320490



Data cable for communication between devices with a D-SUB 9 RS-232 connection and Phoenix Contact devices with the 12-pos. IFS data port such as QUINT UPS-IQ or TRIO UPS.

Data cable - IFS-USB-DATACABLE - 2320500



Used for communicating between industrial PCs and Phoenix Contact devices with the 12-pos. IFS data port, such as QUINT UPS or TRIO UPS.

## Memory block

Memory block - IFS-CONFSTICK - 2986122



Multi-functional memory block for the INTERFACE systemf for easy storage and backup of the configuration.

Memory block - IFS-CONFSTICK-L - 2901103



Multi-functional memory block with handle for the INTERFACE system; for easy storage and back up of the configuration.