Uninterruptible power supply - TRIO-UPS/1AC/24DC/ 5 - 2866611

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (http://phoenixcontact.com/download)

Uninterruptible power supply with integrated power supply unit. For lead AGM energy storage of type MINI-BAT/24/DC/1.3 AH, QUINT-BAT/24DC 3.4 AH … 12 AH nominal capacity. Input: 1-phase, output: 24 V DC / 5 A. Screw connection technology

Product Description

The TRIO UPS module with integrated power supply is particularly space-saving: UPS module and power supply in one housing. Only one energy storage is required to complete the UPS system.
Energy storage with lead AGM technology buffers failures lasting up to two hours with 5 A load current.

Your advantages

- Autonomous – in the event of AC mains failure the industrial PC continues operating without interruption
- Time saving – when the supply voltage is restored, the industrial PC starts automatically

RoHS

D H W

Key Commercial Data

Packing unit	1 pc
GTIN	4 046356 311809
GTIN	4046356311809
Weight per Piece (excluding packing)	1,120.000 g
Custom tariff number	85371091
Country of origin	China

Technical data

Dimensions

Width	60 mm
Height	130 mm
Depth	118 mm
Installation distance right/left	0 mm / 0 mm

Uninterruptible power supply - TRIO-UPS/1AC/24DC/ 5 - 2866611

Technical data

Dimensions

Installation distance top/bottom	50 mm / 50 mm

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C (> 55° C derating : 2.5%/K)
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Max. permissible relative humidity (operation)	95 % (at 25 °C, non-condensing)
Climatic class	3K3 (in acc. with EN 60721)
Degree of pollution	2

Input data

Nominal input voltage range	100 V AC ... 240 V AC
AC input voltage range	85 V AC ... 264 V AC (Derating < 90 V AC: 2.5%V)
Input voltage range DC	100 V DC ... 350 V DC (UL508: 100 ... 250 V)
Buffer time	adjustable: 0.5 min; 1 min; 2 min; 3 min; 5 min; 10 min; 15 min; 20 min; PC-Mode
Current consumption	1.1 A (230 V AC, maximum)
	1.8 A (120 V AC, maximum)
Inrush current limiting/I²t	< 1.3 A^2s
Mains buffering time	see diagram
Typical response time	150 ms (230 V AC)
	200 ms (120 V AC)
Power factor (cos phi)	approx. 0.5
Protective circuit	Transient surge protection Varistor
Input fuse, integrated	6.3 A (slow-blow, internal)

Output data

Nominal output voltage	24 V DC
Setting range of the output voltage (U_{Set})	22.5 V DC ... 29.5 V DC (Network operation; in the buffer mode, dependent on the battery voltage of 27.9 V DC ... 19.2 V DC)
Nominal output current (I_N)	5 A (-25 °C ... 55 °C)
Derating	55 °C ... 70 °C (2.5%/K)
Output current limit	max. 6 A (Mains operation)
Control deviation	< 1 % (change in load, static 10 % ... 90 %)
Efficiency	> 88 % (230 V AC, network operation)
	> 86 % (120 V AC, network operation)
	> 86 % (Battery operation)
Residual ripple	< 10 mV_{PP}
Peak switching voltages nominal load	< 25 mV_{PP}

Uninterruptible power supply - TRIO-UPS/1AC/24DC/ 5 - 2866611

Technical data

Output data

Connection in parallel	yes, 2
Surge protection against internal surge voltages	< 35 V DC
Feedback voltage resistance	35 V DC

General

IQ technology	no
Net weight	1.1 kg
Memory medium	external, battery 1.3 Ah / 3.4 Ah / 7.2 Ah / 12 Ah
Insulation voltage input/output	4 kV (type test)
	2 kV (routine test)
Protection class	I
	> 596000 h (40 °C)
Mounting position	horizontal DIN rail NS 35, EN 60715
Assembly instructions	alignable: horizontally 0 mm, vertically 50 mm

Connection data, input

Connection method	Screw connection
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	2.5 mm²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Screw thread	M3

Connection data, output

Connection method	Screw connection
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	2.5 mm²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Stripping length	8 mm
Screw thread	M3

Connection data for signaling

Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²

Uninterruptible power supply - TRIO-UPS/1AC/24DC/ 5 - 2866611

Technical data

Connection data for signaling

Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	2.5 mm²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Screw thread	M3

Charging process

Charge characteristic curve	I/U characteristic curve
Battery presence check/time interval	60 s
Charge current	0.2 A ... 1.5 A (Default 1.0 A)
End-of-charge voltage	25 V DC ... 30 V DC (Default 27.6 V DC)
Temperature compensation	0 mV/K ... 200 mV/K (42 mV/K by default)
Quality check of battery	4 h ... 200 h (Default 12 h)
Deep discharge protection	18 V DC ... 21 V DC (Default 19.2 V DC)
Alarm signaling threshold	18 V DC ... 30 V DC (Default 20.4 V DC)

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Noise emission	EN 55011 (EN 55022)
Noise immunity	EN 61000-6-2:2005
Connection in acc. with standard	CUL
Standards/regulations	EN 61000-4-2
Contact discharge	6 kV
Standards/regulations	EN 61000-4-3
Frequency range	80 MHz ... 2 GHz
Test field strength	10 V/m
Standards/regulations	EN 61000-4-4
Comments	Criterion B
Standards/regulations	EN 61000-6-3
	EN 61000-4-6
Frequency range	10 kHz ... 80 MHz
Voltage	10 V
Standards/regulations	EN 61000-4-11
Low Voltage Directive	Conformance with Low Voltage Directive 2014/35/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)
Standard – Safety extra-low voltage	EN 60950-1 (SELV)
	EN 60204 (PELV)

Uninterruptible power supply - TRIO-UPS/1AC/24DC/ 5 - 2866611

Technical data

Standards and Regulations

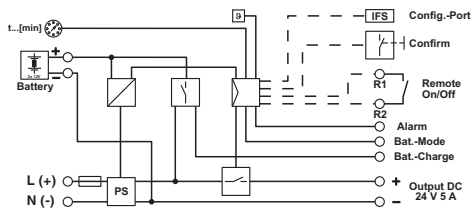
Standard - Safe isolation	DIN VDE 0100-410
Standard – Protection against shock currents, basic requirements for protective separation in electrical equipment	EN 50178
Standard – Limitation of mains harmonic currents	EN 61000-3-2
Shipbuilding approval	DNV GL (EMC B)
UL approvals	UL/C-UL listed UL 508
	UL/C-UL Recognized UL 60950-1
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, 90 min.
Rail applications	EN 50121-4

Environmental Product Compliance

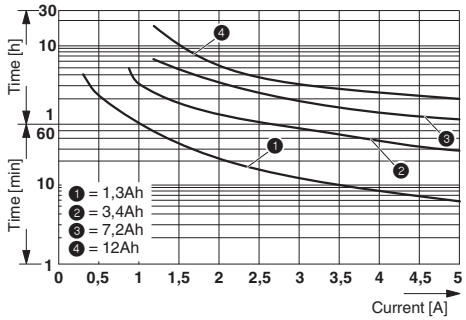
REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 25;
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

Drawings

Block diagram



Diagram



Classifications

eCl@ss

eCl@ss 10.0.1	27040705
eCl@ss 11.0	27040705
eCl@ss 4.0	27040600
eCl@ss 4.1	27040600
eCl@ss 5.0	27040600

Uninterruptible power supply - TRIO-UPS/1AC/24DC/ 5 - 2866611

Classifications

eCl@ss

eCl@ss 5.1	27040600
eCl@ss 6.0	27040600
eCl@ss 7.0	27040603
eCl@ss 9.0	27040705

ETIM

ETIM 2.0	EC000382
ETIM 3.0	EC000382
ETIM 4.0	EC000382
ETIM 6.0	EC000382
ETIM 7.0	EC000382

UNSPSC

UNSPSC 6.01	30211510
UNSPSC 7.0901	39121011
UNSPSC 11	39121011
UNSPSC 12.01	39121011
UNSPSC 13.2	39121011
UNSPSC 18.0	39121011
UNSPSC 19.0	39121011
UNSPSC 20.0	39121011
UNSPSC 21.0	39121011

Approvals

Approvals

Approvals

UL Listed / UL Recognized / cUL Recognized / cUL Listed / EAC / EAC / cULus Recognized / cULus Listed

Ex Approvals

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 123528

Uninterruptible power supply - TRIO-UPS/1AC/24DC/ 5 - 2866611

Approvals

UL Recognized	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 211944
cUL Recognized	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 211944
cUL Listed	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 123528
EAC		EAC-Zulassung
EAC		RU*DE*08.B.01873/19
cULus Recognized		
cULus Listed		

Accessories

Accessories

Assembly adapter

Assembly adapters - QUINT-PS-ADAPTERS7/2 - 2938206

Assembly adapter for QUINT POWER 10A on S7-300 rail

Uninterruptible power supply - TRIO-UPS/1AC/24DC/ 5 - 2866611

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.

Battery unit

Energy storage - MINI-BAT/24DC/1.3AH - 2866417

Energy storage device, lead AGM, VRLA technology, 24 V DC, 1.2 Ah.

Energy storage - QUINT-BAT/24DC/ 3.4AH - 2866349

Energy storage device, lead AGM, VRLA technology, 24 V DC, 4 Ah. Connection via pin cable lug.

Energy storage - QUINT-BAT/24DC/ 7.2AH - 2866352

Energy storage device, lead AGM, VRLA technology, 24 V DC, 7.2 Ah. Connection via pin cable lug, 14 mm.

Energy storage - QUINT-BAT/24DC/12AH - 2866365

Energy storage device, lead AGM, VRLA technology, 24 V DC, 12 Ah. Connection via pin cable lug, 14 mm.

Uninterruptible power supply - TRIO-UPS/1AC/24DC/ 5 - 2866611

Accessories

Energy storage - UPS-BAT/VRLA/24DC/1.3AH - 2320296

Energy storage device, lead AGM, VRLA technology, 24 V DC, 1.3 Ah, tool-free battery replacement, automatic detection, and communication with QUINT UPS-IQ

Energy storage - UPS-BAT/VRLA/24DC/3.4AH - 2320306

Energy storage device, lead AGM, VRLA technology, 24 V DC, 3.4 Ah, tool-free battery replacement, automatic detection, and communication with QUINT UPS-IQ

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

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

Data cable preassembled

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.

Uninterruptible power supply - TRIO-UPS/1AC/24DC/ 5 - 2866611

Accessories

Fuse

Fuse - SI FORM C 15 A DIN 72581 - 0913676

Flat-type plug-in fuse, type C, color code: light blue, nominal current: 15 A

Fuse - SI FORM C 25 A DIN 72581 - 0913757

Flat-type plug-in fuse, type C, color code: white, nominal current: 25 A

Memory block

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.

Memory block - IFS-CONFSTICK - 2986122

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

Mounting rail adapter

Uninterruptible power supply - TRIO-UPS/1AC/24DC/ 5 - 2866611

Accessories

DIN rail adapter - UTA 107 - 2853983

Universal DIN rail adapter, for screwing on switchgear

Programming adapter

Programming adapter - IFS-USB-PROG-ADAPTER - 2811271

Programming adapter with USB interface, for programming with software. The USB driver is included in the software solutions for the products to be programmed, such as measuring transducers or motor managers.