

Uninterruptible power supply - TRIO- UPS-2G/1AC/1AC/120V/750VA - 2905908

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1AC/1AC/750 VA uninterruptible energy supply with integrated energy storage, lead AGM, VRLA technology, 24 V DC, 3.4 Ah for 120 V AC applications.

Product Description

UPS modules with integrated energy storage are particularly space saving: UPS module and energy storage are combined in one housing. The TRIO AC-UPS ensures seamless transition to battery operation thanks to the pure sine curve. Connected industrial PCs can be shut down safely via the integrated USB interface.

Your advantages

- ✓ Smooth transition, thanks to the pure sine curve: the sine generated in battery operation is synchronous with the mains previously used for supply
- ✓ Space saving: UPS module and energy storage combined in one housing
- ✓ Long buffer times with integrated VRLA energy storage, can be extended with additional energy storage
- ✓ USB interface for connection to higher-level controllers such as industrial PCs
- ✓ Startup from energy storage possible, even without mains input



Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 007397
GTIN	4055626007397

Technical data

Dimensions

Width	210 mm
Height	170 mm
Depth	136 mm
Installation distance right/left	0 mm / 0 mm
Installation distance top/bottom	50 mm / 50 mm

Ambient conditions

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Ambient conditions

Ambient temperature (operation)	0 °C ... 40 °C
Ambient temperature (storage/transport)	-15 °C ... 40 °C (with charged energy storage device)
Max. permissible relative humidity (operation)	≤ 95 % (25 °C, non-condensing)
Maximum altitude	≤ 3000 m (> 2000 m, observe derating)
Vibration (operation)	5 Hz ... 100 Hz, 0.7g (EN 60068-2-6)
Shock	20g in all directions (EN 60068-2-27)
	30g in each space direction with UWA 130
Degree of pollution	2
Climatic class	3K3 (in acc. with EN 60721)

Input data

Nominal input voltage	120 V AC
Input voltage range	96 V AC ... 138 V AC
Frequency range	45 Hz ... 55 Hz
	55 Hz ... 65 Hz
Current consumption	6 A
Permissible backup fuse	B10 B16 Listed breaker

Connection data, input

Connection method	Push-in connection
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	4 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	10 mm

Output data

Apparent power	750 VA
Rated Power (Real Power)	600 W
Power factor (cos phi)	0.8
Crest factor	2.8
Switch-over time	< 10 ms
Classification according to IEC 62040-3	VFD-SS-311

Output data (mains operation)

Nominal output voltage (U _N)	120 V AC
Nominal output current (I _N)	6 A (750 VA)

Output data (battery operation)

Nominal output voltage (U _N)	120 V AC
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Technical data

Output data (battery operation)

Nominal output current (I _N)	6 A (750 VA)
Form of output voltage	Pure sine
Frequency (after automatic detection in mains operation)	50 Hz
	60 Hz

Connection data, output

Connection method	Push-in connection
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	4 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Stripping length	10 mm

General data

Efficiency	> 95 % (with charged energy storage device)
MTBF (IEC 61709, SN 29500)	> 206000 h (40 °C)
Degree of protection	IP20
Protection class	I
Type of housing	DX51D+AZ (steel sheet / Galvalume)
Hood version	PC + ABS
Input fuse	10 A 400 V gRL
Weight	5.7 kg

Energy storage

Battery technology	Lead rechargeable battery module
Accumulator type	2x Panasonic UP-VW1220P1
Capacity	3.4 Ah
Battery fuse	40 A, 32 V
Charging time	7 h
Service life	6 Years ... 9 Years (20 °C)
Latest startup	6 Months (0 °C ... 20 °C)
Buffer period	20 min. (100 W)
	4 min. (300 W)
	1 min. (600 W)
Can be extended with external battery	1x 24 V 3.4 Ah

Connection data for the external battery

Connection method	Push-in connection
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	10 mm ²

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Technical data

Connection data for the external battery

Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	6 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	8
Stripping length	15 mm

Status and diagnostics indicator / signal outputs - Alarm

Switching output	Transistor output, active
Output voltage	24 V (SELV)
Continuous load current	≤ 20 mA
Status display	LED red

Status and diagnostics indicator / signal outputs - Battery Mode

Switching output	Transistor output, active
Output voltage	24 V (SELV)
Continuous load current	≤ 20 mA
Status display	Yellow LED

Status and diagnostics indicator / signal outputs - Ready

Switching output	Transistor output, active
Output voltage	24 V (SELV)
Continuous load current	≤ 20 mA

Status and diagnostics indicator / signal outputs - Battery Charge

Status display	Yellow LED
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Status and diagnostics indicator / signal outputs - AC OK, P>Pn, Remote

Status display	Green LED
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Status and diagnostics indicator / signal outputs - Service

Status display	LED red
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Connection data for signaling

Connection method	Push-in connection
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	1.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	16
Stripping length	8 mm

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Technical data

Remote control

Designation	Remote
Low signal	Connection to SGnd with < 2.7 kΩ
High signal	Open (> 35 kΩ between remote and SGnd)

Battery-operated start (bat. start)

Low signal	Connection to SGnd with < 2.7 kΩ
High signal	Open (> 200 kΩ between bat. start and SGnd)

Interfaces

Interface	MINI-USB type B
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Device combinations

UPS connection in parallel	no
UPS connection in series	no

Standards

Standard uninterruptible power supply systems	EN 62040-1
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Conformance/approvals

UL approvals	UL/C-UL Recognized UL 1778
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EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Low Voltage Directive	Conformance with Low Voltage Directive 2014/35/EC
Electrostatic discharge	EN 61000-4-2
Contact discharge	6 kV (Test Level 3)
Discharge in air	8 kV (Test Level 3)
Electromagnetic HF field	EN 61000-4-3
Frequency range	80 MHz ... 3 GHz
Test field strength	10 V/m
Comments	Criterion A
Fast transients (burst)	EN 61000-4-4
Input	2 kV (Test Level 3 - asymmetrical)
	2 kV (Test Level 3 - asymmetrical)
Output	2 kV (Test Level 3 - asymmetrical)
Signal	2 kV (Test Level 3 - asymmetrical)
	2 kV (Test Level 3 - asymmetrical)
Comments	Criterion A (B for USB)
Surge voltage load (surge)	EN 61000-4-5
Input	1 kV (Test Level 2 - symmetrical)
	2 kV (Test Level 3 - asymmetrical)
Output	1 kV (Test Level 2 - symmetrical)
	2 kV (Test Level 3 - asymmetrical)

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Technical data

EMC data

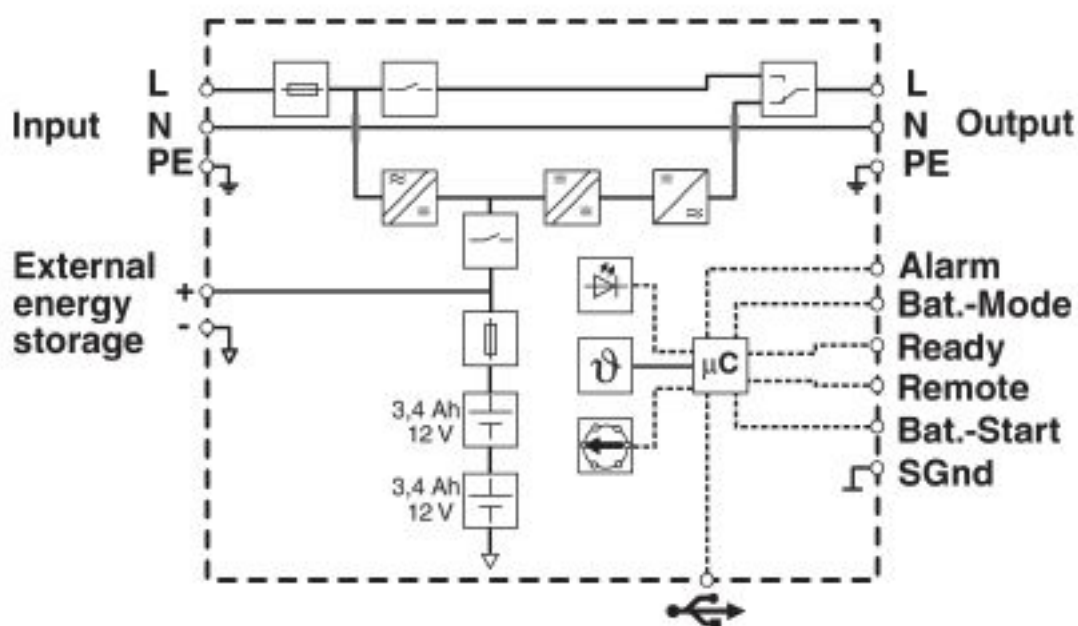
Signal	1 kV (Test Level 2 - asymmetrical)
Comments	Criterion A
Conducted interference	EN 61000-4-6
Frequency range	0.15 MHz ... 80 MHz
Voltage	10 V
Comments	Criterion A
Power frequency magnetic field	EN 61000-4-8
Frequency	60 Hz
Test field strength	100 A/m
Comments	Criterion A
Criterion A	Normal operating behavior within the specified limits.
Criterion B	Temporary impairment to operational behavior that is corrected by the device itself.

Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 3
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

Block diagram



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Classifications

eCl@ss

eCl@ss 10.0.1	27040705
eCl@ss 4.0	27040600
eCl@ss 4.1	27040600
eCl@ss 5.0	27040600
eCl@ss 5.1	27040600
eCl@ss 6.0	27040600
eCl@ss 7.0	27040602
eCl@ss 8.0	27040602
eCl@ss 9.0	27040705

ETIM

ETIM 5.0	EC000382
ETIM 6.0	EC000382
ETIM 7.0	EC000382

UNSPSC

UNSPSC 13.2	39121011
UNSPSC 18.0	39121011
UNSPSC 19.0	39121011
UNSPSC 20.0	39121011
UNSPSC 21.0	39121011

Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / EAC / DNV GL / cULus Recognized

Ex Approvals

UL Recognized / cUL Recognized / cULus Recognized

Approval details

UL Recognized



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 342453

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Approvals

cUL Recognized



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 342453

EAC



RU*DE*08.B.01873/19

DNV GL



<https://approvalfinder.dnvgl.com/>

TAA00002JM

cULus Recognized



Accessories

Accessories

Assembly adapter

Assembly adapters - UWA 130 - 2901664



2-piece universal wall adapter for securely mounting the device in the event of strong vibrations. The profiles that are screwed onto the side of the device are screwed directly onto the mounting surface. The universal wall adapter is attached on the left/right.

Battery unit

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



Energy storage device, lead AGM, VRLA technology, 24 V DC, 3.4 Ah. Connection via pin cable lug, 14 mm.

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Accessories

Uninterruptible power supply replacement battery - UPS-BAT-KIT-VRLA 2X12V/3,4AH - 2908233



Replacement battery for UPS-BAT/VRLA... energy storage

Data cable preassembled

Data cable - MINI-SCREW-USB-DATACABLE - 2908217



Used for communication between an industrial PC and Phoenix Contact devices with USB-Mini-B connection.

Fuse

Fuse - FUSE 10A/400V GRL - 2908358



Fuse, nominal current: 10 A, length: 31.8 mm, diameter: 6.35 mm

Fuse - FUSE 40A/32V ATOF - 2908357



Fuse, nominal current: 40 A, length: 19 mm, width: 5 mm, height: 18.8 mm

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Authorized Distributor

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