

Uninterruptible power supply - TRIO-UPS-2G/1AC/24DC/5 - 2907160

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Uninterruptible power supply with integrated power supply unit. For lead AGM energy storage with 1.3 Ah to 12 Ah nominal capacity. Input: 1-phase, output: 24 V DC/5 A. Push-in connection technology

Product Description

Supply DC loads reliably and save space with the TRIO uninterruptible power supplies. An input grid is no longer necessary for startup. Connected industrial PCs can be shut down easily via the integrated USB interface.

Why buy this product

- ✓ Space saving: UPS module and energy storage combined in a single housing
- ✓ Long buffer times, thanks to large selection of VRLA energy storage systems
- ✓ USB interface for connection to higher-level controllers such as industrial PCs
- ✓ Startup from energy storage possible, even without mains input
- ✓ Universal range of possible applications, thanks to a comprehensive package of approvals and an extended temperature range
- ✓ Easy installation, thanks to push-in connection technology

RoHS

Key Commercial Data

Packing unit	1 STK
GTIN	 4 055626 166575
GTIN	4055626166575

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Dimensions

Width	60 mm
Height	130 mm
Depth	115 mm
Width with alternative assembly	115 mm
Height with alternative assembly	130 mm

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Dimensions

Depth with alternative assembly	60 mm
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Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C (> 60 °C Derating: 2.5 %/K)
Ambient temperature (start-up type tested)	-40 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	≤ 95 % (At +25°C, non-condensing)
Climatic class	3K3 (in acc. with EN 60721)
Degree of pollution	2
Installation height	≤ 4000 m (> 2000 m, observe derating)

Input data

AC input voltage range	100 V AC ... 240 V AC -15 % ... +10 %
Inrush current limiting/ I^2t	< 0.43 A ² s
Mains buffering	≥ 15 ms (120 V AC)
Typical response time	60 ms
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})	24 V DC ... 28 V DC (> 24 V constant capacity)
Nominal output current (I_N)	5 A
Dynamic Boost ($I_{Dyn.Boost}$)	7.5 A
Derating	> 60 °C (2.5%/K of P_{Out} nom.)
Control deviation	< 0.75 % (Static load change 10 % ... 90 %)
Maximum power dissipation in no-load condition	< 3 W (230 V AC)
Efficiency	typ. 85 % (120 V AC)
	typ. 87 % (230 V AC)
	typ. 96 % (Battery operation)
Residual ripple	< 20 mV
Connection in parallel	yes, with diode module uncoupled
Surge protection against internal surge voltages	< 30 V DC
Feedback resistance	≤ 35 V DC

General

Net weight	0.75 kg
Insulation voltage input/output	3 kV AC (type test)
	1.5 kV AC (routine test)
Protection class	I
MTBF (IEC 61709, SN 29500)	> 1395470 h (230 V AC, at 25 °C)
	> 825726 h (230 V AC, at 40 °C)
	> 388314 h (230 V AC, at 60 °C)

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General

Mounting position	horizontal DIN rail NS 35, EN 60715
Assembly instructions	alignable: horizontally 0 mm, vertically 50 mm

Connection data, input

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

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

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

Charging process

Charge characteristic curve	IU ₀ U
Charge current	0.2 A ... 1.5 A (-25 °C ... 60 °C)

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
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

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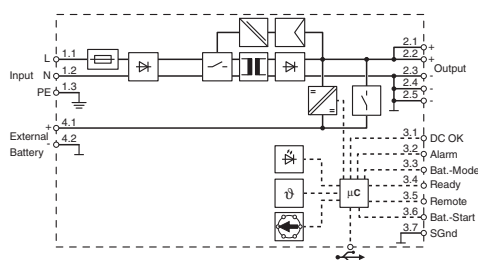
Technical data

Standards and Regulations

Test field strength	10 V/m (Test Level 3)
Standards/regulations	EN 61000-4-4
Comments	Criterion B
Standards/regulations	EN 61000-4-6
Frequency range	0.15 MHz ... 80 MHz
Voltage	10 V (Test Level 3)
Conducted noise emission	EN 61000-6-4 (Class A)
Standards/regulations	EN 61000-4-12
Low Voltage Directive	Conformance with Low Voltage Directive 2014/35/EC
Standard - power supply devices for low voltage with DC output	EN 61204-3
Standard – Safety extra-low voltage	IEC 61010 (SELV) / (PELV)
Standard - Safe isolation	DIN VDE 0100-410
UL approvals	UL Listed UL 61010
	UL/C-UL Listed ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C
Shock	30g, 18 ms according to IEC 60068-2-27
Vibration (operation)	< 12 ... 13.2 Hz, amplitude ± 1 mm, 13.2 ... 100 Hz, 0.7g in accordance with IEC 60068-2-6
Overvoltage category (EN 61010-1)	II

Drawings

Block diagram



Approvals

Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

UL Listed / cUL Listed / cULus Listed

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Approvals

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 123528
cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 123528
EAC			RU C- DE.A*30.B.01082
cULus Listed			

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