

Power supply unit - TRIO-PS-2G/1500DC/24DC/8 - 1075240

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Primary-switched TRIO POWER power supply with Push-in connection for DIN rail mounting, input: 1,500 V DC, output: 24 V DC / 8 A



Key Commercial Data

Packing unit	1 pc
Custom tariff number	85044030
Country of origin	China

Technical data

Note

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

Width	88.5 mm
Height	130 mm
Depth	160 mm

Ambient conditions

Degree of protection	IP20
Inflammability class in acc. with UL 94 (housing / terminal blocks)	V0
Ambient temperature (operation)	-25 °C ... 70 °C (>60°C derating: 1.2%/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

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Ambient conditions

Installation height	≤ 4000 m (> 2000 m, Derating: 10 %/1000 m)
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Input data

Nominal input voltage range	600 V DC ... 1500 V DC
Input voltage range	510 V DC ... 1650 V DC
Dielectric strength maximum	≤ 1800 V DC 1 s
Current consumption	typ. 0.35 A (600 V DC)
	typ. 0.145 A (1500 V DC)
Recommended breaker for input protection	2 A (gPV)

Output data

Nominal output voltage	24 V DC ±1 %
Setting range of the output voltage (U_{Set})	24 V DC ... 28 V DC (> 24 V DC, constant capacity restricted)
Nominal output current (I_N)	8 A
Derating	> 60 °C ... 70 °C (2.5%/K)
Connection in parallel	Yes, for redundancy and increased capacity
Connection in series	No
Feedback voltage resistance	≤ 35 V DC
Protection against overvoltage at the output (OVP)	≤ 30 V DC
Control deviation	< 1 % (change in load, static 10 % ... 90 %)
	< 3 % (Dynamic load change 10 % ... 90 %, 10 Hz)
	< 0.1 % (change in input voltage ±10 %)
Residual ripple	< 40 mV _{PP}
	< 50 mV _{PP}
Output power	192 W
Maximum power dissipation in no-load condition	< 9 W
Power loss nominal load max.	< 24 W

General

Net weight	1.5 kg
Efficiency	typ. 90.9 % (900 V DC)
	typ. 89 % (1500 V DC)
MTBF (IEC 61709, SN 29500)	> 1500000 h (25 °C)
	> 900000 h (40 °C)
	> 400000 h (60 °C)
Insulation voltage input/output	4.2 kV DC (type test)
	2.6 kV DC (routine test)
Degree of protection	IP20
Protection class	I

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General

Inflammability class in acc. with UL 94 (housing / terminal blocks)	V0
Mounting position	horizontal DIN rail NS 35, EN 60715
Assembly instructions	alignable: horizontally 0 mm (≤ 40 °C) 10 mm (≤ 70 °C), vertically 50 mm

Connection data, input

Connection method	Push-in connection
Conductor cross section solid min.	1 mm ²
Conductor cross section solid max.	4 mm ²
Conductor cross section flexible min.	1 mm ²
Conductor cross section flexible max.	2.5 mm ²
Conductor cross section AWG min.	18
Conductor cross section AWG max.	12
Stripping length	10 mm

Connection data, output

Connection method	Push-in connection
Conductor cross section solid min.	1 mm ²
Conductor cross section solid max.	4 mm ²
Conductor cross section flexible min.	1 mm ²
Conductor cross section flexible max.	2.5 mm ²
Conductor cross section AWG min.	18
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

Standards

Standard - Electrical safety	EN 62109-1:2011
Standard - Safety extra-low voltage	IEC 62109-1:2011 (SELV)
Standard - Safe isolation	DIN VDE 0100-410

Conformance/approvals

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Conformance/approvals

UL approvals	UL 62109-1:2014
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EMC data

Electrostatic discharge	EN 61000-4-2
Contact discharge	4 kV (Test Level 2)
Discharge in air	8 kV (Test Level 3)
Electromagnetic HF field	EN 61000-4-3
Frequency range	80 MHz ... 1 GHz
Test field strength	20 V/m (> Test intensity 3)
Frequency range	1 GHz ... 2 GHz
Test field strength	10 V/m (Test Level 3)
Frequency range	2 GHz ... 3 GHz
Test field strength	10 V/m (Test Level 3)
Comments	Criterion A
Fast transients (burst)	EN 61000-4-4
Input	4 kV (Test Level 4 - asymmetrical)
Output	2 kV (Test Level 3 - asymmetrical)
Signal	1 kV (Test Level 3 - asymmetrical)
Comments	Criterion A
Surge voltage load (surge)	EN 61000-4-5
Input	3 kV (> Test intensity 4 - symmetrical)
	6 kV (> Test intensity 4 - asymmetrical)
Output	1 kV (Test Level 3 - symmetrical)
	2 kV (Test Level 3 - asymmetrical)
Signal	1 kV (Test Level 3 - symmetrical)
Comments	Criterion B
Conducted interference	EN 61000-4-6
Frequency range	0.15 MHz ... 80 MHz
Voltage	10 V (Test Level 3)
Comments	Criterion A

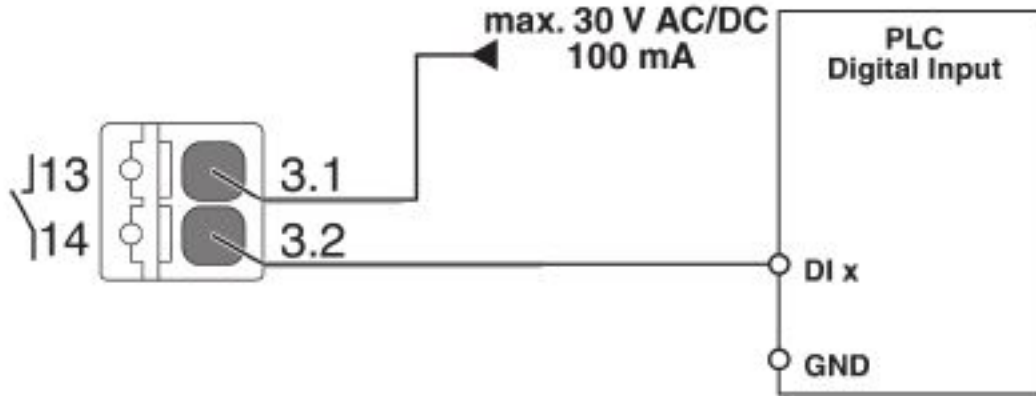
Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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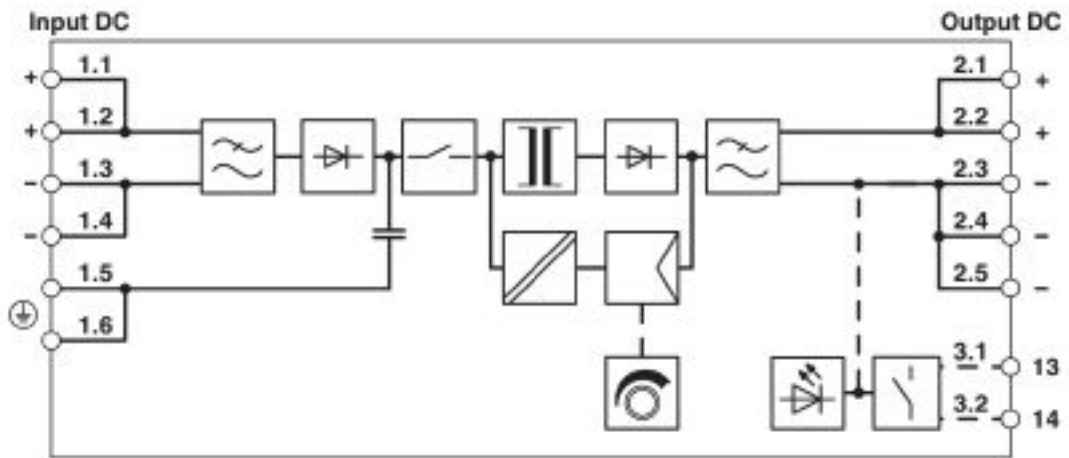
Drawings

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Connection diagram

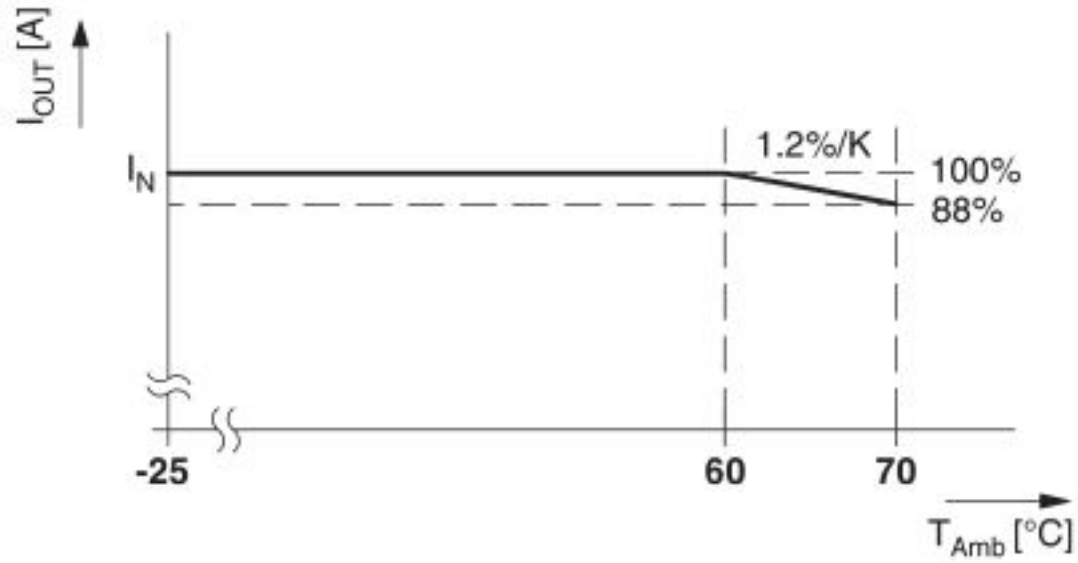


Block diagram



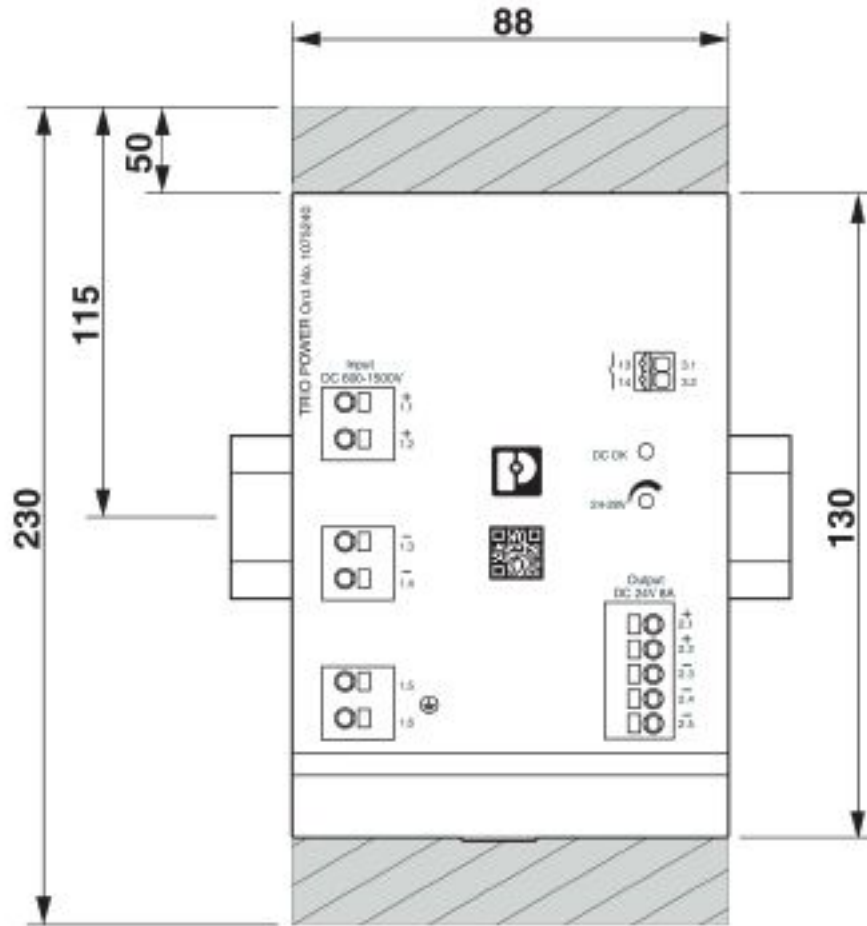
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Diagram



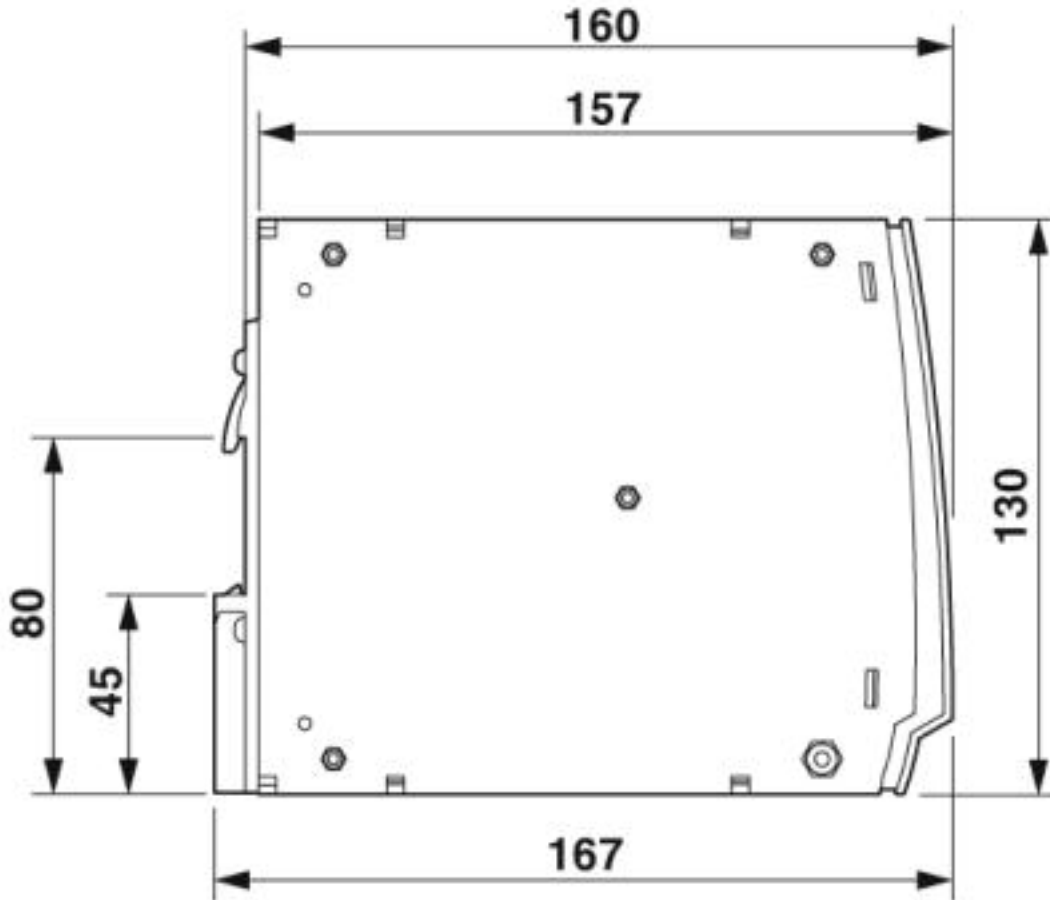
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Dimensional drawing



Power supply unit - TRIO-PS-2G/1500DC/24DC/8 - 1075240

Dimensional drawing



Classifications

eCl@ss

eCl@ss 9.0	27210901
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Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / IECCE CB Scheme / cULus Recognized

Ex Approvals

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Approvals

Approval details

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 476951
cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 476951
IECEE CB Scheme		http://www.iecee.org/	US-33734-UL
cULus Recognized			

Accessories

Accessories

Device circuit breakers

Electronic device circuit breaker - CBM E4 24DC/0.5-10A NO-R - 2905743



Multi-channel, electronic device circuit breaker with active current limitation for protecting four loads at 24 V DC in the event of overload and short circuit. With nominal current assistant and electronic locking of the set nominal currents. For installation on DIN rails.

Electronic device circuit breaker - CBM E8 24DC/0.5-10A NO-R - 2905744



Multi-channel, electronic device circuit breaker with active current limitation for protecting eight loads at 24 V DC in the event of overload and short circuit. With nominal current assistant and electronic locking of the set nominal currents. For installation on DIN rails.

Potential distributor

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Accessories

Potential distributors - VIP-2/SC/PDM-2/24 - 2315269



VARIOFACE module, with two equipotential busbars (P1, P2) for potential distribution, for mounting on NS 35 rails.
Module width: 70.4 mm

Potential distributors - VIP-3/PT/PDM-2/24 - 2903798



VARIOFACE module with push-in connection and two equipotential busbars (P1, P2) for potential distribution, for mounting on NS 35 rails. Module width: 57.1 mm

PV arrester

Type 2 surge arrester - VAL-MS 1500DC-PV/2+V - 1033708



Surge arrester for 2-pos. isolated 1500 V DC voltage systems, for DIN rail mounting, 3-pos. base element, three plug-in temperature-monitored protective elements, status message on each plug.

Lightning/surge arrester type 1/2 - VAL-MB-T1/T2 1500DC-PV/2+V - 2905641



Lightning/surge arrester for 2-pos. isolated 1500 V DC voltage systems, for DIN rail mounting, temperature-monitored protective elements, status message on the module.
