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

RoHS

Key Commercial Data

Packing unit	1 pc
GTIN	4 055626 779492
GTIN	4055626779492
Weight per Piece (excluding packing)	1,520.000 g
Custom tariff number	85044030
Country of origin	China

Technical data

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)

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Ambient conditions

Climatic class	3K3 (in acc. with EN 60721)
Degree of pollution	2
Installation height	≤ 4000 m (> 2000 m, Derating: 10 %/1000 m)

Input data

Nominal input voltage range	600 V DC ... 1500 V DC
Input voltage range	600 V DC ... 1500 V DC -15 % ... +10 %
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} (Ripple)
	< 50 mV_{PP} (Noise)
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. 91.5 % (600 V DC)
	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)

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General

	2.6 kV DC (routine test)
Degree of protection	IP20
Protection class	I
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 mm²
Conductor cross section solid max.	4 mm²
Conductor cross section flexible min.	1 mm²
Conductor cross section flexible max.	2.5 mm²
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 mm²
Conductor cross section solid max.	4 mm²
Conductor cross section flexible min.	1 mm²
Conductor cross section flexible max.	2.5 mm²
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 mm²
Conductor cross section solid max.	1.5 mm²
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	1.5 mm²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	16
Stripping length	8 mm

Standards

Standard - Electrical safety	EN 62109-1:2011

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Technical data

Standards

Standard – Safety extra-low voltage	IEC 62109-1:2011 (SELV)
Standard - Safe isolation	DIN VDE 0100-410
Overvoltage category IEC 62109-1	II

Conformance/approvals

UL approvals	UL 62109-1:2014

EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Low Voltage Directive	Conformance with Low Voltage Directive 2014/35/EC
Conducted noise emission	EN 55016
	EN 61000-6-4 (Class A)
Noise emission	EN 55016
	EN 61000-6-4 (Class A)
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 B
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

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Technical data

EMC data

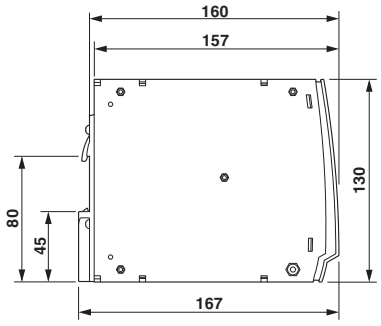
Frequency range	0.15 MHz ... 80 MHz
Voltage	10 V (Test Level 3)
Comments	Criterion A
Voltage dips	EN 61000-4-11
Criterion A	Normal operating behavior within the specified limits.
Criterion B	Temporary impairment to operational behavior that is corrected by the device itself.

Environmental Product Compliance

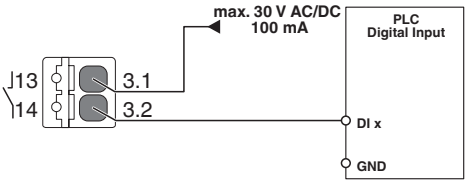
REACh SVHC	Lead 7439-92-1

Drawings

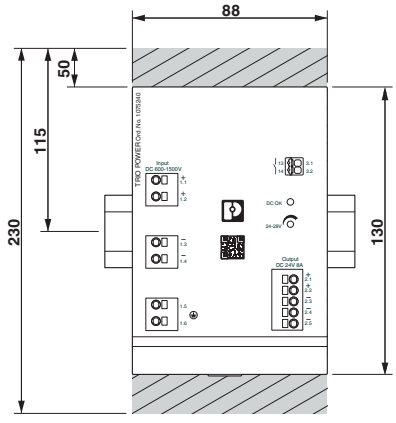
Dimensional drawing



Connection diagram

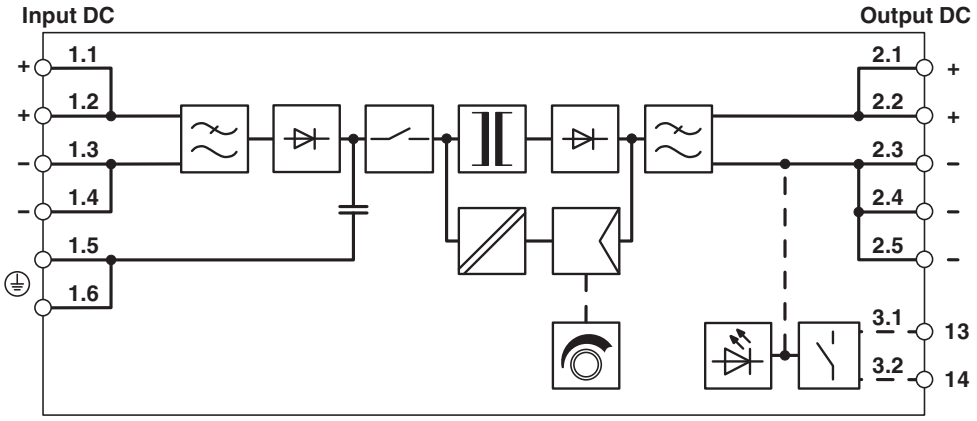


Dimensional drawing

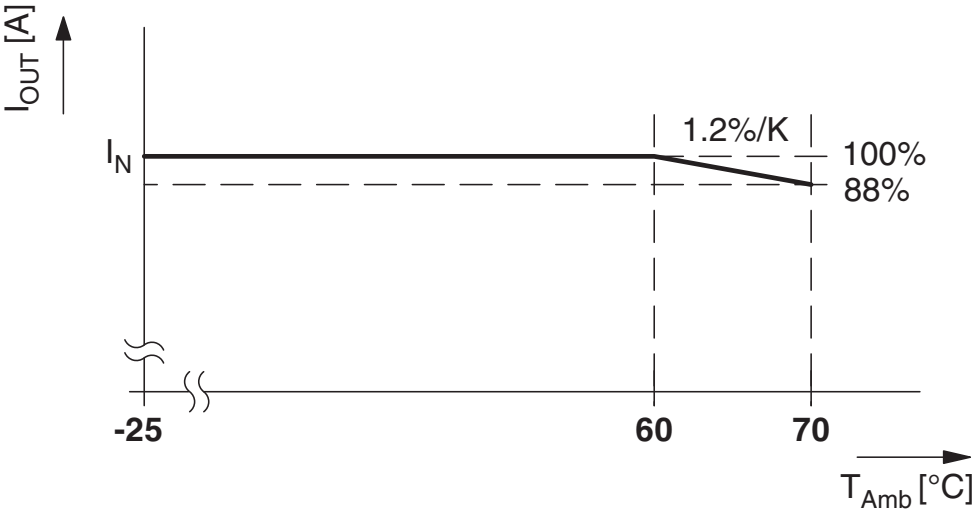


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Block diagram



Diagram



Classifications

eCl@ss

eCl@ss 10.0.1	27210901
eCl@ss 11.0	27210901
eCl@ss 9.0	27210901

ETIM

ETIM 7.0	EC002046

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Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / IECEE CB Scheme / EAC / cULus Recognized

Ex 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
EAC			RU S-DE.BL08.W.00764
cULus Recognized			

Accessories

Accessories

Device circuit breakers

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Accessories

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



Multi-channel, electronic 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 circuit breaker - CBM E8 24DC/0.5-10A NO-R - 2905744



Multi-channel, electronic 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

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

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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

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PV arrester

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



Surge protective device for 2-pos. isolated and grounded 1500 V DC PV systems, for DIN rail mounting, 3-pos. base element, three pluggable temperature-monitored protective elements, status message on each plug.

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Accessories

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



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

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