

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

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>)



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
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
-------------------------	---

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

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

Technical data

Ambient conditions

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	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

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

Technical data

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 ($\leq 40\text{ °C}$) 10 mm ($\leq 70\text{ °C}$), 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

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

Technical data

Conformance/approvals

UL approvals	UL 62109-1:2014
--------------	-----------------

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

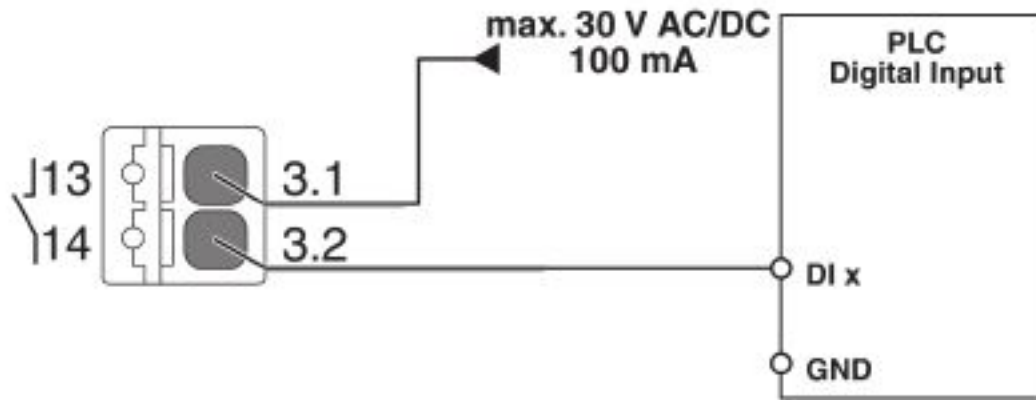
Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
------------	----------------

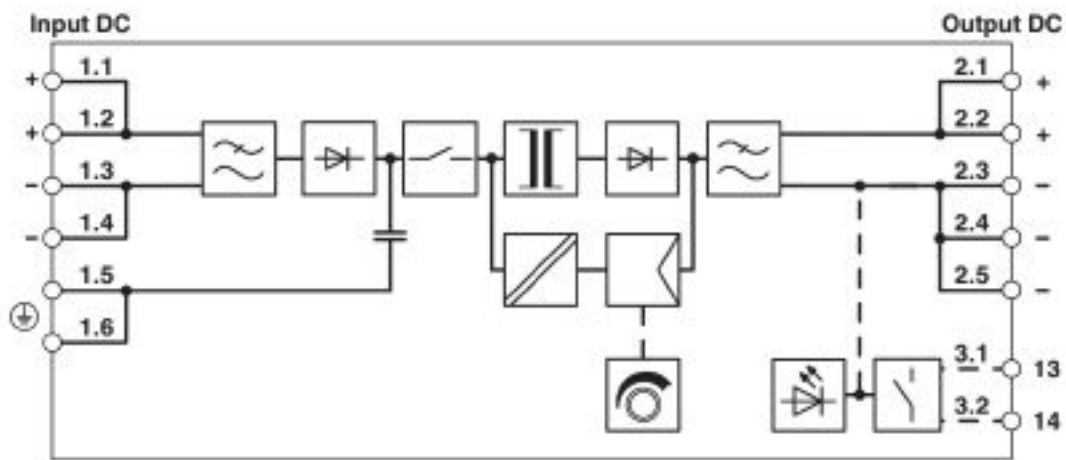
Drawings

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

Connection diagram

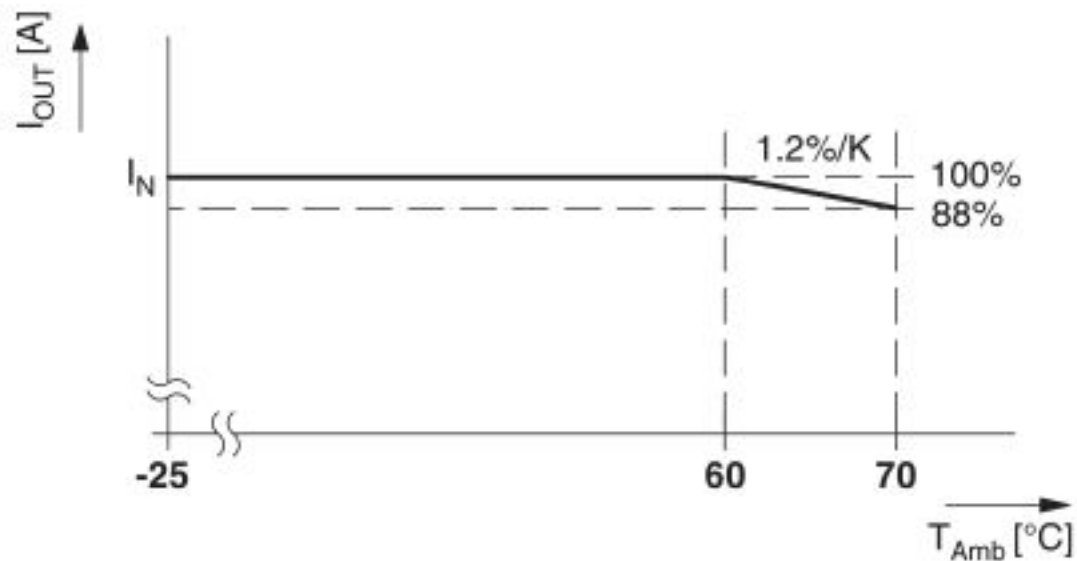


Block diagram



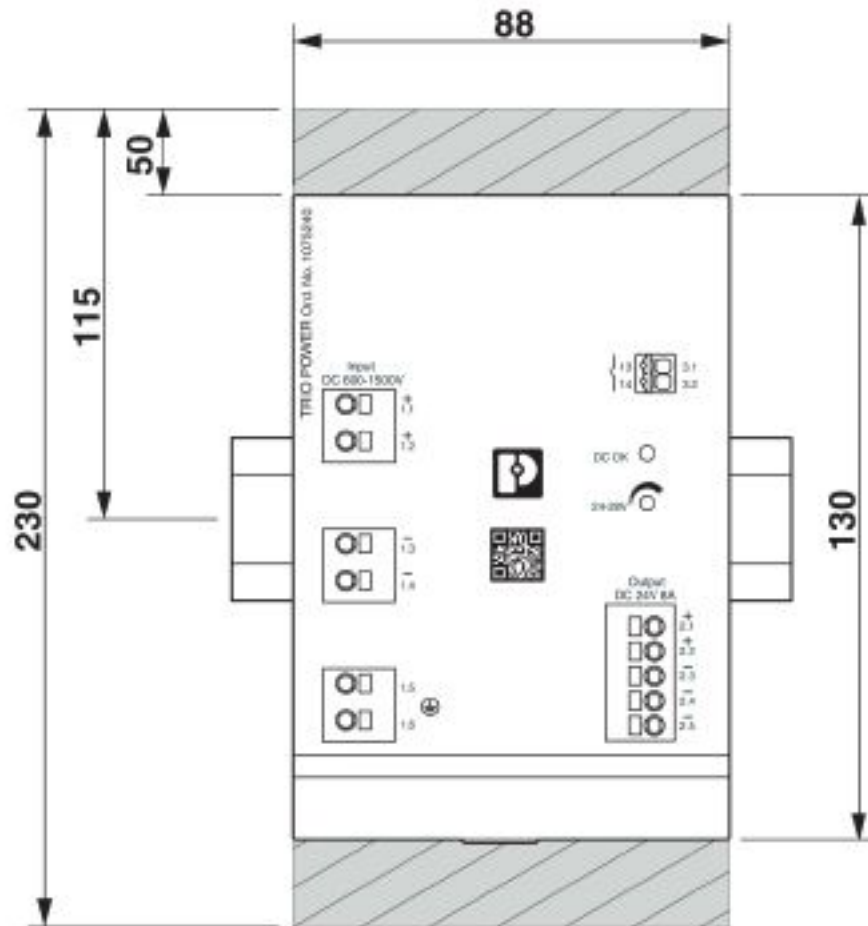
Power supply unit - TRIO-PS-2G/1500DC/24DC/8 - 1075240

Diagram



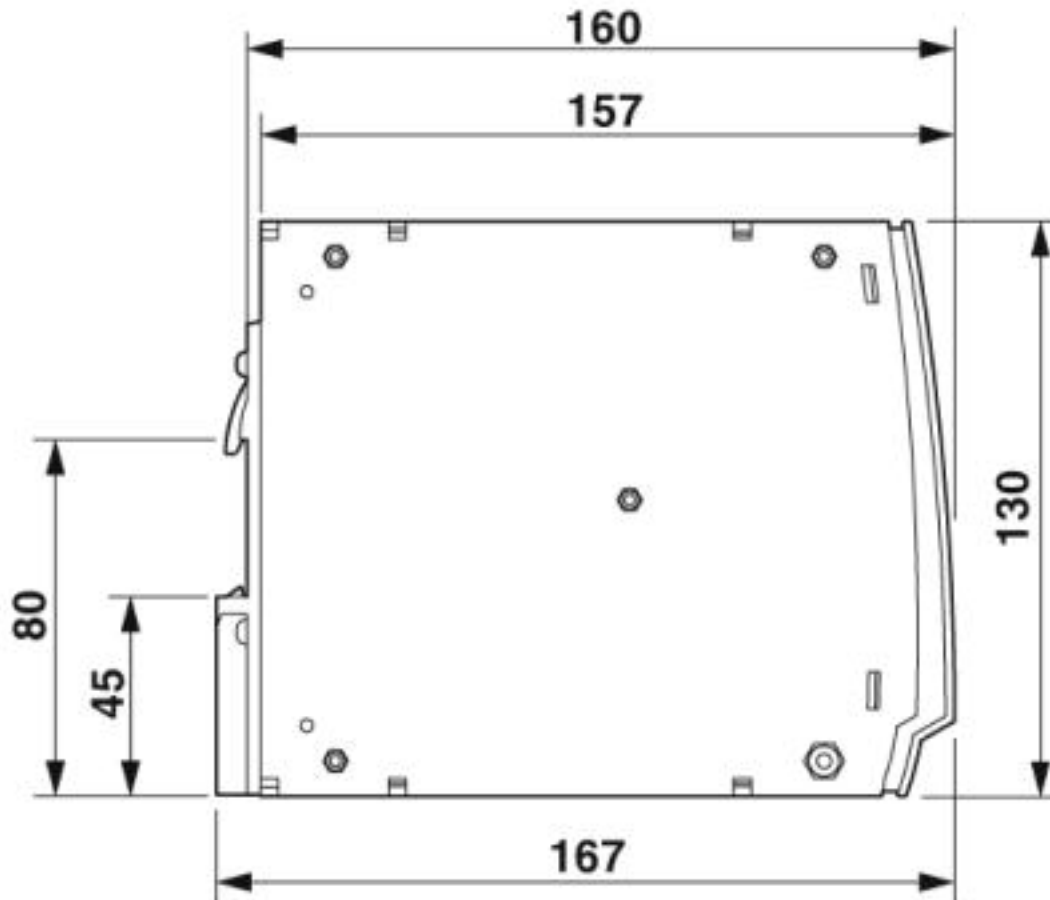
Power supply unit - TRIO-PS-2G/1500DC/24DC/8 - 1075240

Dimensional drawing



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

Dimensional drawing



Classifications

eCl@ss

eCl@ss 9.0	27210901
------------	----------

Approvals

Approvals

Approvals

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

Ex Approvals

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

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

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

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.