Light barrier amplifier

PSU-1000S

Features

- Operation voltage 95 ... 265 V AC / 47 ... 63Hz
- Output voltage 24 V DC
- Output power 8,4 W
- Overload protection, short circuit proof
- Overtemperature protection
- External fuse is not necessary
- High efficiency >74%
- Switching on current limiter
- Mounting for DIN rail EN 60715

Safety Instructions

Warning!

The power supply unit PSU-... are not safety systems and should not be used as such systems.
The devices are not to be used for applications, where personal safety is dependent on their function.

Short Description

The power supply PSU-1000S supplies direct current devices with maximum power consumption up to 8,4 W. Modern and extreme energy-saving switching power supply technology enables a high efficiency of more than 74%.

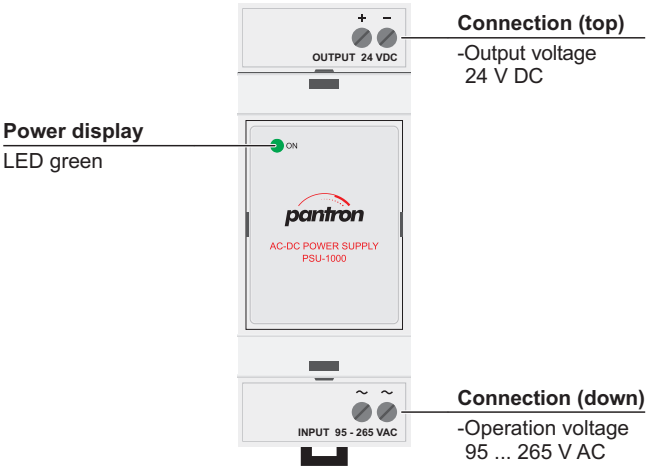
The device has a wide range alternating voltage input from 95 V AC up to 265 V AC and supplies a selected, constant, and stabilized direct current voltage of 24 V DC with a maximum current of 350 mA. The voltage output is short circuit proof, overload and overtemperature protected.

No fuse is necessary on the input side and the switching-on current limiter prevents overloading during switching-on. Using a safety transformer guarantees a galvanic separation from the operation voltage (EN 61558).

A constantly illuminated, green shining LED shows, that the device supplies the direct current devices correctly. Several PSU-1000S... can be connected in parallel or in series.

The case has the standard dimensions according to DIN 43880. Easy and quick mounting on the standard DIN rail is possible (EN 60715).

Device Overview



Ordering Table

Type	Order code
Power supply unit 95...265 V AC	PSU-1000S/95-265VAC
Accessories	
Protective enclosure	PanBox 1x1

DS141101EN - 06/2015

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PSU-1000S

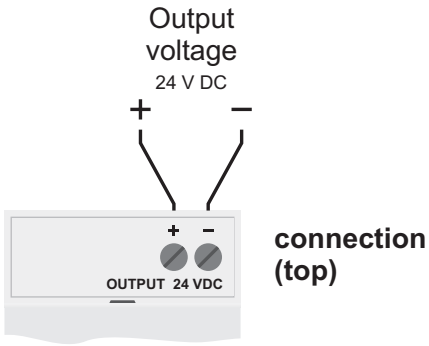
Technical Data (at 20 °C / 68 °F)

Operating voltage		95 ... 265 V AC
Power consumption		max. 11 VA
Current consumption:	230 V AC 115 V AC	< 100 mA < 200 mA
Power loss (max.) [1] (EN 61439)		230 V AC: 1,4 W 115 V AC: 0,8 W
External fuse		not necessary
Overvoltage protection (IN)		< 2,0 kV
Power display		LED green
Parallel connection		yes
Series connection		yes
Housing material		NORYL (self-extinguishing) UL 94 V-0
Housing colour		grey RAL 7035
Protection class		IP20
Operation temperature		-25 °C ... 50 °C
Storage temperature		-40 °C ... 80 °C

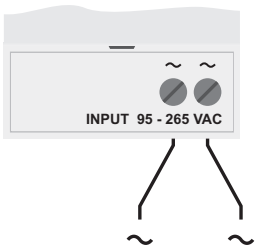
Output voltage		24 V DC, short circuit proof
Voltage tolerance		± 5%
Output current		350 mA
Remaining ripple		< 60 mV_{SS} (20 MHz bandwith)
Buffer time:	230 V AC with I_{max} 115 V AC with I_{max}	> 50 ms > 16 ms
Overvoltage protection (OUT)		< 1,3 x output voltage
Emission		EN 50081-1: EN 55011-1A
Immunity		EN 50082-1
Isolation test voltage according to EN 60950		IN - OUT 2,5 kV AC
MTBF (IEC 61709)		$6{,}2 \cdot 10^6$ h (T_a = 40 °C / 104 °F)
Mounting		DIN rail EN 60715
Electrical connection		screw terminal 0,14 - 2,5 mm²

[1] Without load at the output

Connection Diagram



connection (top)



connection (bottom)

Dimensions (in mm)