

# Central 48 V DC Power Supplies for PoE-Components

# MICROSENS

## Description

Active network equipment which is supporting the Power-over-Ethernet functions, typically requires a powerful 48 V DC power supply. For this particular demanding application MICROSENS offers special power supplies.

Main feature of these power supplies is the immunity against electromagnetic interference, which is important for sensitive applications like VoIP telephony. Further important features are high efficiency and the easy installation with snap-on for DIN-rails.

The power supplies are available with the levels of 96, 192, 300 and 600 W. The output voltage can be increased up to 56 V DC in order to compensate voltage losses on the power supply lines. All devices are having an excellent over voltage and overload protection mechanism.

## Features

- Highest reliability and availability
- Operating mode for normal, battery or parallel use configureable
- Power supply status inform with 2-coloured LED display
- High efficiency
- Wide range input 85 – 264 VAC
- Adjustable output voltage 48 – 56 V DC
- Power ratings 96 W / 192 W / 300 W / 600 W
- DC-OK signal via active output
- Effective electric surge and overload protection
- Parallel operation up to 5 power supplies
- Compact dimensions
- Low weight
- Simple mounting on DIN-rails, optionally additional bracket for wall mounting
- Industrial safety and standard approvals
- Pluggable and multiple laid out scrow terminals for easy wiring and quick installation

## Technical Specifications

<b>Type</b>	Compact power supplies for industrial use	
<b>Input</b>	Rated input voltage	85 – 264 V AC
	Input frequency (AC)	47 – 63 Hz
	AC switch on current (230 V) at full load typ.	<20 A (MS700466) <25 A (MS700467) <25 A (MS700468) <30 A (MS700469)
	Input current harmonics	EN61000-3-2/A
<b>Output</b>	Rated output voltage	48 V DC
	Adjustable range	48 – 56 V DC
	Output current	2.0 A (MS700466) 4.0 A (MS700467) 7.5 A (MS700468) 12.5 A (MS700469)
	Rated output power	96 W (MS700466) 192 W (MS700467) 360 W (MS700468) 600 W (MS700469)
	Overvoltage protection	60 V
	Reverse voltage protection	63 V
<b>Ripple</b>	<100 mV <sub>pp</sub>	
<b>Efficiency</b>	87% (typ.)	
<b>Connections</b>	all wires 0.5 – 2.5 mm <sup>2</sup> / AWG=12-22	
<b>Hold-up time</b>	>20 ms (U <sub>in</sub> =230 V AC)	
<b>LED-Displays</b>	green	DC on
	red	DC off
<b>Safety standards</b>	IT-equipment	EN60950-1, UL60950-1, CSA-C22.2 Nr 60950-1-03
	Industrial control equipment	UL508
	Electrical equipment of machines	EN60204
	Electronic equip. of power installation	EN50178
	Safety transformers for SMPS	EN61558-2-4
<b>Safety class</b>	In accordance to IEC 536, Class 1	
<b>Case protection</b>	IP20 (EN60529)	
<b>Electromagnetic compatibility (EMC)</b>	EN61000-6-2, EN61000-6-3, EN61204-3, EN55011 Class B, EN55022 Class B	
<b>Isolation</b>	EN60950-1, UL60950-1, UL508	

<b>Pollution degree</b>	2	
<b>Derating</b>	0.02% / K	
<b>Operating temperature range</b>	Operation:	-25 °C – +70 °C
	Storage:	-25 °C – +85 °C
<b>Relative humidity</b>	95 % non condensing	
<b>Reliability (MTBF) (@ 25°C accord. IEC-1709)</b>	MS700466:	> 1.800.000 h
	MS700467/468/469:	> 900.000 h
<b>Dimensions</b>	MS700466	35 x 110 x 110 mm (W x D x H)
	MS700467	54 x 110 x 110 mm (W x D x H)
	MS700468	80 x 125 x 125 mm (W x D x H)
	MS700469	165 x 125 x 125 mm (W x D x H)
<b>Weights</b>	MS700466	500 g
	MS700467	700 g
	MS700468	1100 g
	MS700469	2800 g
<b>Enclosure material</b>	Aluminium (chassis), zinc plated steel (cover)	
<b>Mounting</b>	DIN-rail as per EN50022-35x15/7.5 (snap-on self-locking spring)	

## Redundancy / Monitoring

For redundancy it is possible to operate up to 5 devices in parallel. To activate the integrated separation circuits it is necessary to set the jumper for the parallel operation and the output voltages must be adjusted to the exact same values.

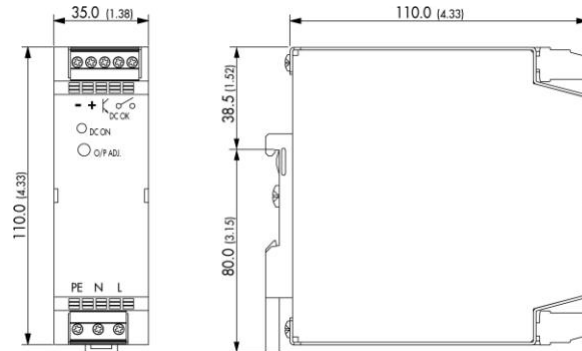
For monitoring the power supplies are having any active output and one relay. This contact indicates the DC-OK function. By combination of both outputs and looping through it is also possible to recognise a failure of only one power supply.

## Further Documentation

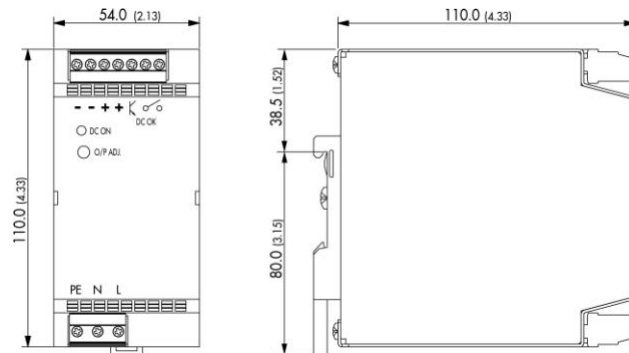
- This document you find at: [www.microsens.de](http://www.microsens.de) → Newslink: 720213
- DC/DC-Compact Power Supplies → Newslink: 720078

**Dimensions**

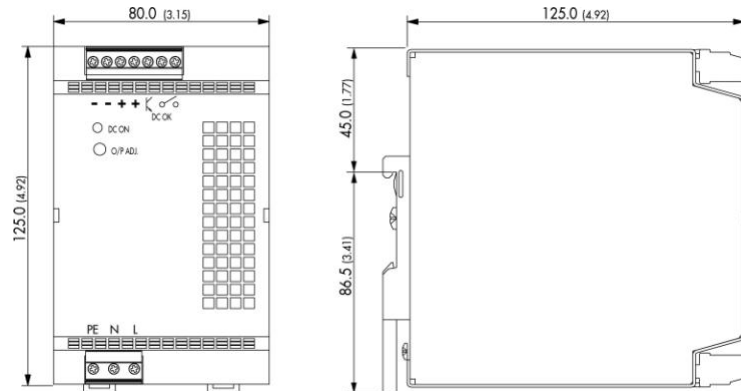
**MS700466:**



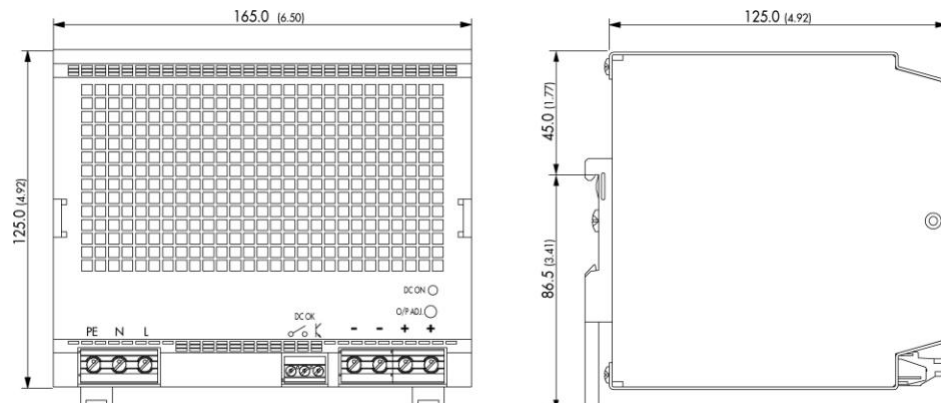
**MS700467:**



**MS700468:**



**MS700469:**



**Ordering information**

<b>Art.-No.</b>	<b>Description</b>	<b>Connectors</b>
MS700466	DIN-rail power supply 96 watts 48 V / 2.0 A, Wide range input 85 – 264 V AC	In: 3-pin Out: 2- pin
MS700467	DIN-rail power supply 192 watts 48 V / 4.0 A, Wide range input 85 – 264 V AC	In: 3- pin Out: 4- pin
MS700468	DIN-rail power supply 360 watts 48 V / 7.5 A, Wide range input 85 – 264 V AC	In: 3- pin Out: 4- pin
MS700469	DIN-rail power supply 600 watts 48 V / 12.5 A, Wide range input 85 – 264 V AC	In: 3- pin Out: 4- pin

We accept no liability for the accuracy of the information given. As a result of the continuous development of our products we reserve the right to make technical modifications. 41/07 mr/fr/dh

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