

Datasheet

Compact power supply for industrial environments (AC/DC)



(Fig. MS700421)

General

MICROSENS offers special compact power supplies for extremely demanding industrial applications in harsh environments.

The key feature of the power supplies is their insensitivity to electrical interference, which is particularly important for use in fail-safe industrial and manufacturing environments.

Other important features are high efficiency, compact dimensions, low dead weight and easy mounting (snap-on) on DIN rails. The power supplies have a wide range input for AC and DC voltages. Power classes of 60 and 120 W (24VDC output voltage) as well as 60W (48VDC output voltage) are offered, another series with higher power ratings is also available. Output voltage can also be set within a predetermined range. All devices are equipped with an effective overvoltage and overload protection.

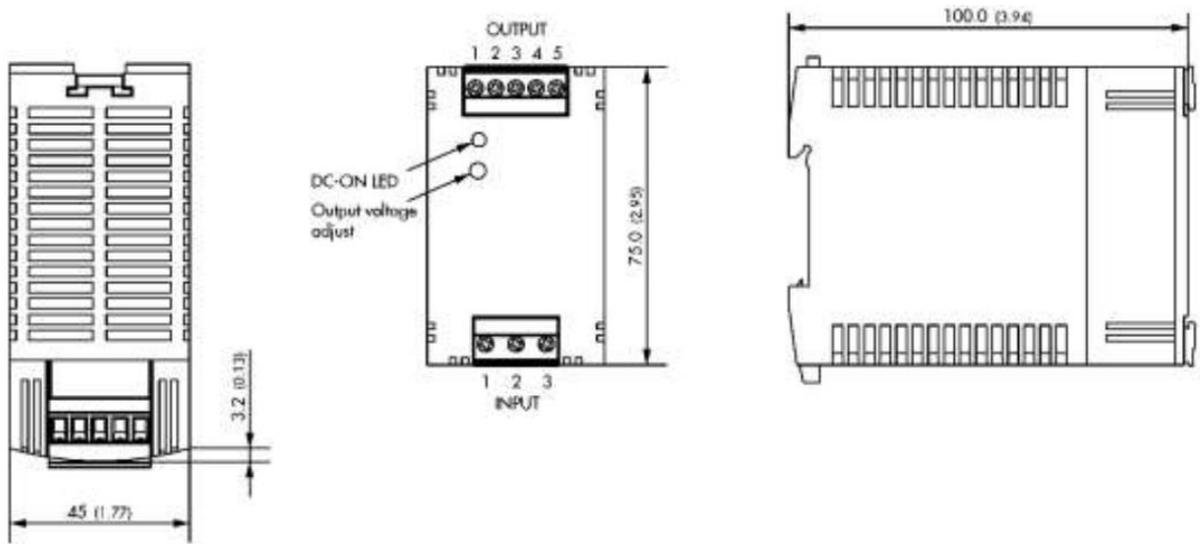
The MICROSENS product range for the industrial sector includes, in addition to the compact power supplies described here, active network components of the Entry Line, Profi Line and Profi Line Modular series.

Features

- Highest reliability and availability
- High efficiency
- Wide range input 85..264 VAC oder 85..375 VDC
- Output voltage 24 VDC / 48 VDC, depending on model
- Power classes 60 W / 120 W
- Power Good Signalling
- Effective overvoltage and overload protection
- Compact dimensions and low dead weight
- Simple mounting on DIN rail, additional bracket for wall mounting included

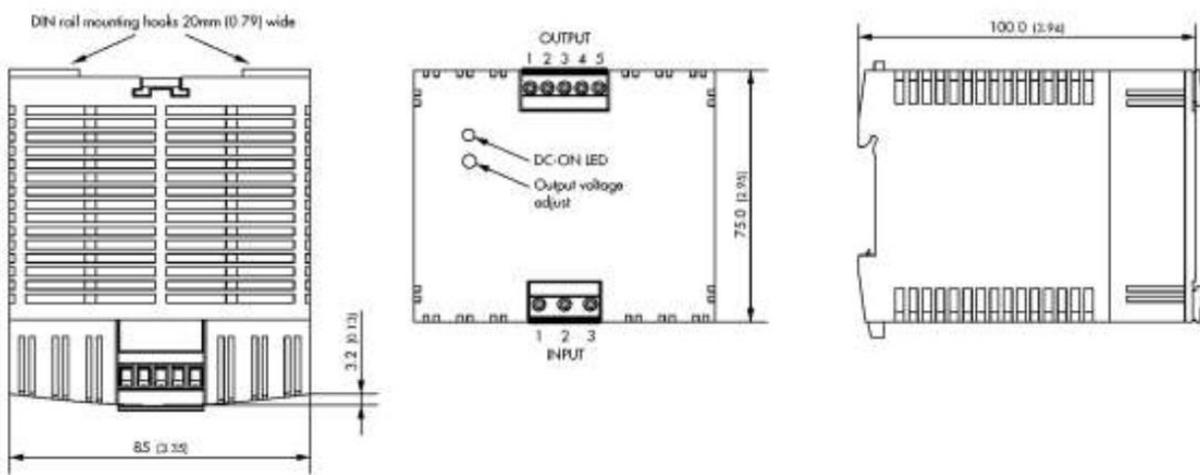
Connections

MS700421 / MS700430



Pin	Input	Output (MS700421/430) (5-Pin)
1	PE	+V _{out}
2	N	+V _{out}
3	L1	-V _{out}
4		-V _{out}
5		Power Good

MS700422



Pin	Input	Output (MS700422) (5-Pin)
1	PE	+V _{out}
2	N	+V _{out}
3	L1	-V _{out}
4		-V _{out}
5		Power Good

Mounting

The compact power supply has a sturdy plastic housing with an integrated bracket for DIN rail mounting. It is mounted on 35 mm mounting rails according to DIN EN 50 022. If no DIN rails are used, the power supply unit can be mounted directly on the wall using the enclosed plastic holder (see picture below).



The MICROSENS component is snapped into place by using a snap-on mounting. The optimized heat dissipation makes it easy to connect several units in a row.

Technical Details

Type	Compact power supply for industrial environments	
Input	Rated input voltage	85..264 VAC/ 85..375 VDC
	Input frequency (AC)	47..63 Hz
	AC input current (230VAC)	0,6 A (MS700421/430)
	At full load	1,0 A (MS700422)
	Interference suppression level	EN61000/A
Output 24VDC	Rated output voltage	24 VDC
	Setting range	24..28 VDC
	Output current	2,5 A (MS700421) 5,0 A (MS700422)
	Rated power output	60 W (MS700421) 120 W (MS700422)
Output 48VDC	Rated output voltage	48 VDC
	Setting range	48..56 VDC
	Output current	1,25 A (MS700430)
	Rated power output	60 W (MS700430)
	Ripple	< 50 mV
Efficiency	≥ 88% (typ.)	
Connections	All types 0,5 bis 2,5 mm ² / AWG=12-22	

Technical Details

Isolation voltage	3000 VAC (Input to output) 2000 VAC (Input to ground) 500 VAC (Output to ground)
Protection Class	EN60950, EN50178, EN60204, EN61558-2-8, UL6090, UL508
EMC Compatibility	EN61000-6-2, EN61000-6-3
Power failure - Bypass	>125 ms (U _{in} =230 V AC) >15 ms (U _{in} =115 V AC)
LED-Displays	DC On
Dimensions	MS700421/430: 45 x 100 x 75 mm (W x D x H) MS700422: 85 x 100 x 75 mm (W x D x H)
Weight	MS700421/430: 265 g MS700422: 440 g
Derating (Input voltage)	85-93 VAC (85-130 VDC) 15% (MS700421/2)
Derating (Temp.)	1,1%/°C up to 40°C 1,7%/°C up to 50 °C
Environment	Operation: -10 °C up to +70 °C Storage: -25 °C up to +85 °C
Humidity	upto 95 % non condensing.
Reliability (MTBF) (at 25°C-IEC-1709)	MS700421/430: 2.950.000 h (IEC 61709) MS700422: 1.620.000 h (IEC 61709)

Order Information

Description	Art. No.
Industrial DIN-Rail Power Supply 24VDC / 2,5A (60W) Input 85..264VAC/83..375VDC, Output 24..28VDC , -10..+70°C	MS700421
Industrial DIN-Rail Power Supply 24VDC / 5A (120W) Input 85..264VAC/83..375VDC, Output 24..28VDC , -10..+70°C	MS700422
Industrial DIN-Rail Power Supply 48VDC / 1,25A PoE+ (60W) Input 85..264VAC/83..375VDC, Output 48..56VDC , -10..+70°C	MS700430

Other DIN-Rail Power Supplies

Description	Art. No.
Industrial DIN-Rail Power Supply 24VDC / 1,25A (30W) Input 100..264 VAC/120..375 VDC, Output 24..28VDC, -20..+70°C "	MS700440
Industrial DIN-Rail Power Supply 48VDC / 1,05A PoE+ (50W) Input 85..264VAC/90..375VDC, Output 48..56VDC, -10..+70°C	MS700455
Industrial DIN-Rail Power Supply 48VDC / 2,5A PoE+ (120W) Input 90..132/180..264VAC/210..370VDC, Output 45..55VDC, -35..+70°C	MS700456
Industrial DIN-Rail Power Supply 48VDC / 5A PoE+ (240W) Input 90..132/180..264VAC/210..370VDC, Output 47..56VDC, -40..+70°C	MS700457
Industrial DIN-Rail Power Supply 48VDC / 10A PoE+ (480W) Input 90..264VAC/120..370VDC, Output 47..56VDC, -40..+70°C	MS700458

This document in whole or in part may not be duplicated, reproduced, stored or retransmitted without prior written permission of MICROSENS GmbH & Co. KG. All information in this document is provided 'as is' and subject to change without notice. MICROSENS GmbH & Co. KG disclaims any liability for the correctness, completeness or quality of the information provided, fitness for a particular purpose or consecutive damage. MICROSENS is a trademark of MICROSENS GmbH & Co. KG. Any product names mentioned herein may be trademarks and/or registered trademarks of their respective companies. 19/2019pk/mr – Translated fdb 4120