

# eNSP-300P-RS

200 Watt

- Industrial PC power supply with UPS function
- RS232 interface
- Temperature range 0...+50 °C

The UPS PC power supply eNSP-300P-RS uniquely combines the functions of a PC power supply with those of a UPS. Sudden voltage drops or complete voltage failures are safely bridged. Energy is provided by the external battery pack. The eNSP-300P-RS is fit-form-compatible with conventional PC power supplies. The battery pack can be installed into the 5.25" drive slot. Via an interface cable, which is part of the delivery, the power supply can communicate with an optional UPS management software.



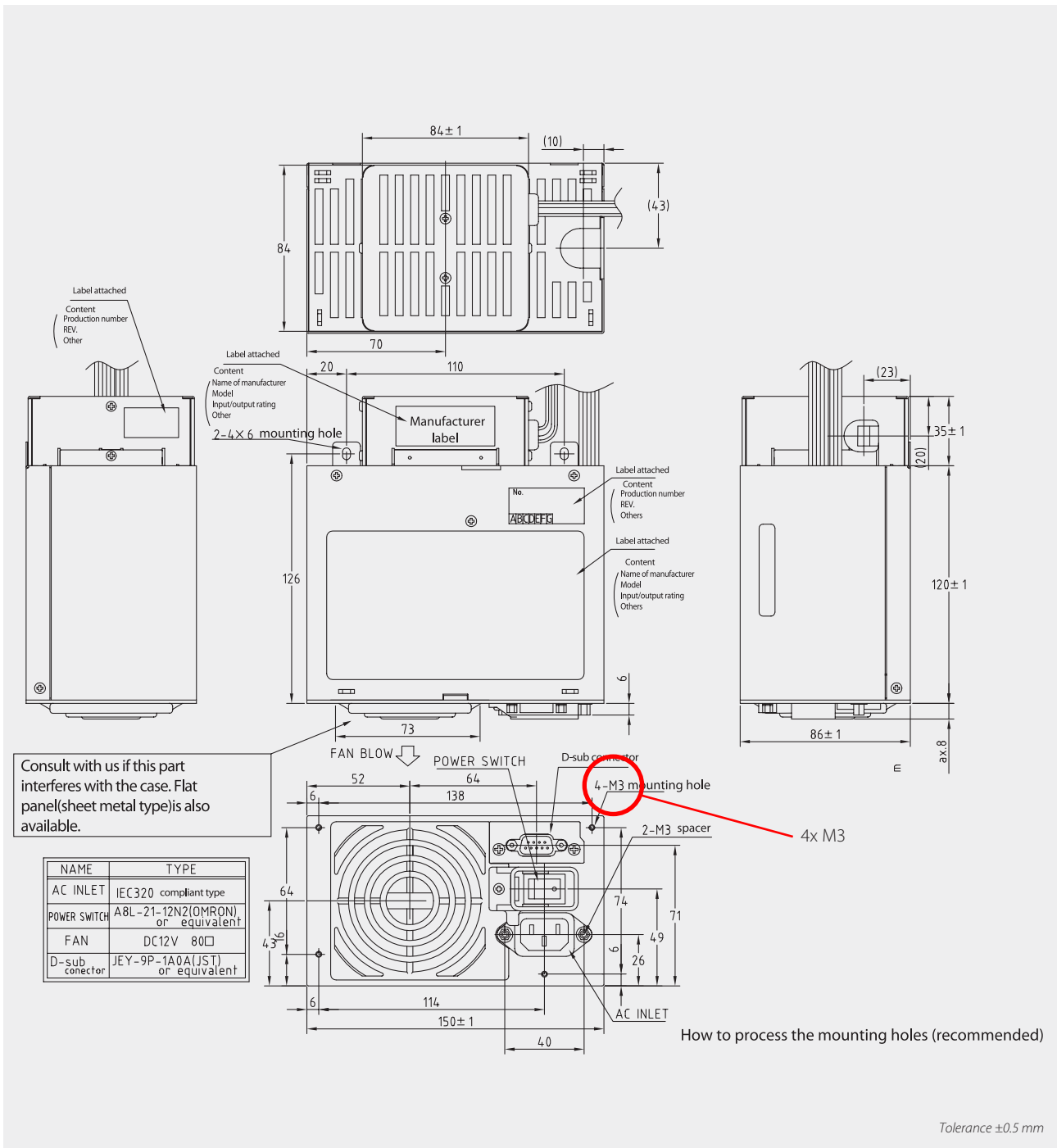
Technical data	
Input voltage	85...264 V AC / Active PFC
Input frequency	47...63 Hz
Input current	2.6 A max. (115 V AC) / 1.3 A max. (230 V AC)
Inrush current	<50 A (100 V AC) / <100 A (240 V AC)
Efficiency	71 % typ. (240 V AC)
Power-Good-Signal	Switch on delay 100...500 ms Switch off delay 1 ms
Protection	Short circuit protection: at each output Overvoltage protection: +5 V (5.74...7.0 V) / +3.3 V (3.76...4.3 V) / +12 V (13.4...15.6 V) Switch off
Earth leakage current	<1 mA / 240 V AC
Safety / EMC	EN 60950-1, IEC 60950-1, UL 60950-1, CE
Operating temperature	0...+50 °C
Derating	+45...+50 °C, 4 % / °C
MTBF	105 000 h
Storage temperature	-25...+70 °C
Operating humidity	10 % to 90 % RH, non-condensing
Dimensions (WxDxH)	150 x 155 x 86 mm ±0.5 mm
Weight (net)	2 kg

Product specific data	
Battery types	BP-2423N-B1: (2 x 12 V / 2.3 Ah), maintenance-free lead batteries RBS01A-P24/2.2L: (2 x 12 V / 2.3 Ah), maintenance-free lead batteries, in clip-on frame
Back-up time	BP-2423N-B1: app. 3 min. at 100 % load, app. 9 min. at 50 % load RBS01A-P24/2.2L: app. 3 min. at 100 % load, app. 9 min. at 50 % load
Battery charge current	0.5 A max. ±0.2 A; battery is also charged when PC is switched off
Battery charger	27.3 V, with temperature compensation
Battery monitoring	20 V ±0.5 V "Batterie low" switching point 19 V ±0.5 V "Shut down" switching point

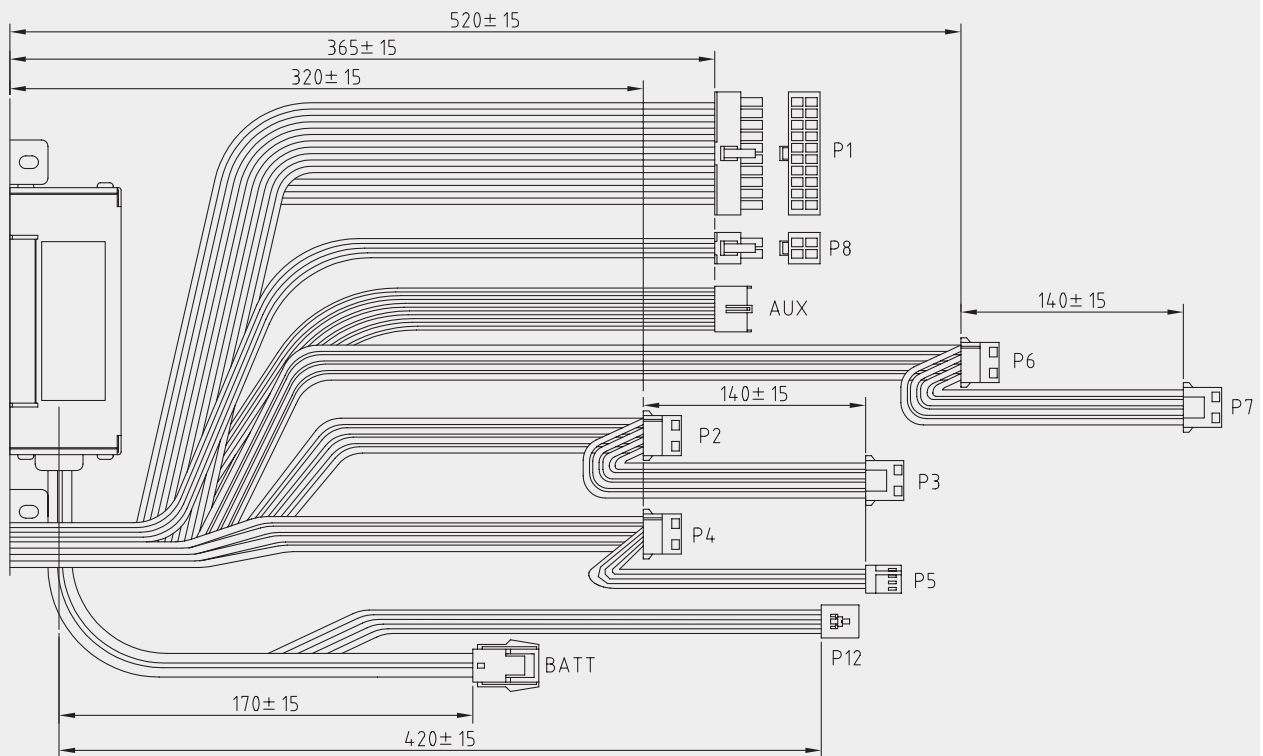
Article No.	Output voltage	Output current			Voltage regulation	Ripple & Noise
		min	max	peak		
eNSP-300P-RS	+3.3 V	0 A	14 A	28 A	±4 %	50 mV
	+5 V	1 A	21 A	30 A	±4 %	50 mV
	+12 V	0 A	10 A	15 A	±10 %	150 mV
	-5 V	0 A	0.3 A	0.3 A	±5 %	50 mV
	-12 V	0 A	0.8 A	0.8 A	±5 %	100 mV
	+5 V <sub>sb</sub>	0 A	1.5 A	2.5 A	±5 %	50 mV

Combined max. output at +3.3 V and +5 V must not exceed 125 W (180 W peak). Combined max. output at +3.3 V, +5 V, and 12 V must not exceed 185 W (280 W peak). From a load of 12 V / >7 A onwards a minimum load of >1.5 A is required at +5 V. From a load of +5 V / 21 A onwards a minimum load of app. 0.3 A is required at +12 V. Peak output can be 303 W for up to 3 seconds. Ripple and noise was measured by a 20 MHz oscilloscope with connected 10 µF electrolytic capacitor and 0.1 µF ceramic capacitor at each output. This power supply is for assembly purposes only and it must not be operated in unassembled condition. The final assembly has to comply with the valid EMC standards.

## Drawing eNSP-300P-RS



## Cable harness eNSP-300P-RS (Included in delivery)



### Pin assignment of backside connector

P2, P3, P4, P6, P7 (HD)		P8 (P4)		P1 (ATX)		P1 (ATX)	
PIN No.	Function	PIN No.	Function	PIN No.	Function	PIN No.	Function
1	+12 VDC	1	COM	1	+3.3 VDC	11	+3.3 VDC default sense
2	COM	2	COM	2	+3.3 VDC	12	+3.3 VDC
3	COM	3	+12 VDC	3	COM	13	-12 VDC
4	+5 VDC	4	+12 VDC	4	+5 VDC	14	COM
				5	COM	15	PS-ON#
				6	+5 VDC	16	COM
				7	COM	17	COM
				8	PWR-OK	18	-5 VDC
				9	+5 V <sub>SB</sub>	19	+5 VDC
				10	+12 VDC	20	+5 VDC

P5 (FDD)		AUX	
PIN No.	Function	PIN No.	Function
1	+5 VDC	1	COM
2	COM	2	COM
3	COM	3	COM
4	+12 VDC	4	+3.3 VDC
		5	+3.3 VDC
		6	+5 VDC

PS2601-02, 500 mm



Tolerance ±15 mm

## Pin assignment of front connector

### Serial interface RS232 (DSUB9)

AC Fail	Output In case of mains voltage failure, level drops to -9 VDC. When mains voltage is ok, level is at +9 VDC.
Battery LOW	Output If battery is low, level drops to -9 VDC. If battery is ok, level is at +9 VDC.
Shutdown	Input Signal to switch off the PC power supply in UPS mode. The level must be $\geq 2.4$ V DC for $\geq 15$ ms.

### Internal interface P12 open collector

AC Fail	Output In case of mains voltage failure, level drops to -9 VDC. When mains voltage is ok, level is low.
Battery LOW	Output If battery is low, the level turns to high. If battery is ok, level is low.
Shutdown	Input Signal to switch off the PC power supply in UPS mode. The level must be $\leq 0.4$ V DC for $> 15$ ms..

### D-SUB interface

D-SUB9 PIN No.	Function
1	Batt low
2	N.C.
3	N.C.
4	Shut down
5	N.C.
6	N.C.
7	N.C.
8	AC fail
9	N.C.

### Battery connection

BATT PIN No.	Function
1	Batt +VE
2	Batt -VE

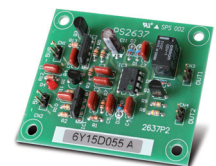
### Internal interface

P12 Open collector PIN No.	Function
1	COM
2	Shut down
3	AC fail
4	Batt. low
5	N.C.
6	Fan alarm

Specification is subject to change without notice. Errors excepted. Status as at: 09.12.2011

### ENSP3-REBOOT

Automatic start and reboot board



**Optional accessory** ▷▷▷ For detailed information please visit our website [www.bicker.de](http://www.bicker.de) and refer to the article number.

Article No.	Description
BP-2423N-B1	Battery pack with lead batteries 24 V / 2.3 Ah
RBS01A-P24/2.2L	Battery pack with removable lead batteries (clip-on frame)
RUPS 2000-B1	UPS Management Software (CD-ROM)
ENSP3-REBOOT	Automatic start and reboot board

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