

DP500IP

Power Supply

primary switched IP67 power supply



Abbildung ähnlich / device similar to figure

- Wide range input (100 - 240VAC)
- Activ PFC-input
- Electrical safety: EN61204-7, EN 50178
- EMC: EN55011 Class B, EN 61000-6-2
- Extensive protection for power output: short circuit, no-load, overvoltage, high temperature
- Low stand-by-power
- No inrush current
- High transient robustness
- High-precision output voltage



Type	Input voltage	Output voltage	Max. output current	Cat. No.
	Nom.		Nom. / (Boost)	
DP500IP-12	100-240VAC	12VDC	40A / (60A)	109518
DP500IP-13,8	100-240VAC	13,8VDC	35A / (52A)	109517
DP500IP-24	100-240VAC	24VDC	20A / (30A)	109515

1 Input

Input voltage AC	nom. 100 - 240VAC	tolerance: 85VAC - 276VAC
Input frequency	50 - 60Hz	tolerance: 45 - 65Hz
Input voltage DC	195 - 350VDC	-
Inrush current	-	No Inrush current (active regulated limitation)
Max. current consumption	max. 8A (100VAC) max. 3,5A (230VAC)	-
Power factor	> 0,98	@ P _{nom}
No-load power	Typ. 2W	-
Input fuse	T10A / 250V internal	additional external fuse is not necessary
Transient overvoltage protection	Varistor (4,5 kA / 120 J)	-
Hold up time	> 20 ms	-

2 Output

Output voltage	-	see table on page 1
Tolerance	± 1% over all	-
Turn on delay time	< 1s	turn on after mains connection
Boost	150% of I _{nom}	for 5s overload reserve @ U _{in} > 170VAC
Capacitive load start-up	-	unlimited (I-const. characteristic)

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Technische Änderungen und Irrtümer vorbehalten. | Technical modifications and mistakes reserved.

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3 Regulation accuracy

Load regulation static (10-90%)	< 0,5 %	typ. 0,05%
Load regulation dyn. (10-90%)	< 5 %	-
Recovery time	< 1 ms	-
Line regulation	< 0,2 %	typ. 0,02%
Rise time U _{out} U _{out} (10-90%)	< 50 ms	-
Ripple & Noise	< 150 mVpp	-

4 EMC (Electromagnetic Compatibility)

RFI-emission	EN55011 Class B
Immunity	EN61000-6-2

5 Enviroment

Operating temperature device	-25°C ... +85°C	55°C ... 85°C: Derating with $1,5 \frac{\%}{C}$ (temperatures at reference point)
Operating temperature connections cables	- 40°C ... + 85°C - 5°C ... + 85°C	fixed laying occasionally movement
Storage temperature	-25°C ... +85°C	(-40°C ... +85°C o.R.)
Over temperature protection	-	Protective shut down, self reset after cool down
Cooling	-	Cooling via contact to mounting surface. For safe operating, a good thermal connection between mounting surface and the heat sink (application) have to be provided.
Humidity	100%	Condensation allowed
Degree of protection	IP67	EN60529
Pollution degree	3	EN60721
Climatic category	3K3	EN60721
Max. altitude	4000m	(Low air pressure – 61kPa)
Formation of ice	Allowed	-

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6 General Data

Electrical safety	EN50178 (IEC62103), EN61204-7	-
Overvoltage category	III	acc. to IEC60664-1
Insulation Voltage	3000VAC 500VDC	Input / output output / enclosure
Protective system	Class 1	with PE connection
Efficiency	Typ. 93%	-
Dimensions (W x H x D)	185 x134 x 56mm	see drawing on page 5
Weight	approx. 2,6kg	-

7 Connectors and Signaling

Input	-	able with open ends (length 1m ± 15mm), 3-pole (L, N, PE), Ø 1,5 mm ² (AWG16)
Ausgang	12V	able with open ends (length 1m ± 15mm), 2-pole, Ø 6mm ² , red (Output +), black (GND)
	24V	able with open ends (length 1m ± 15mm), 2-pole, Ø 3,3mm ² (AWG 12), white (Output +), black (GND)
LED "DC - O.K."	Continuous green	DC - O.K. ($U_{out} = 90..110\%$ von U_{nom})
	Flashing 300ms on / 300ms off	DC - not O.K. ($U_{out} < 90\%$ von U_{nom})

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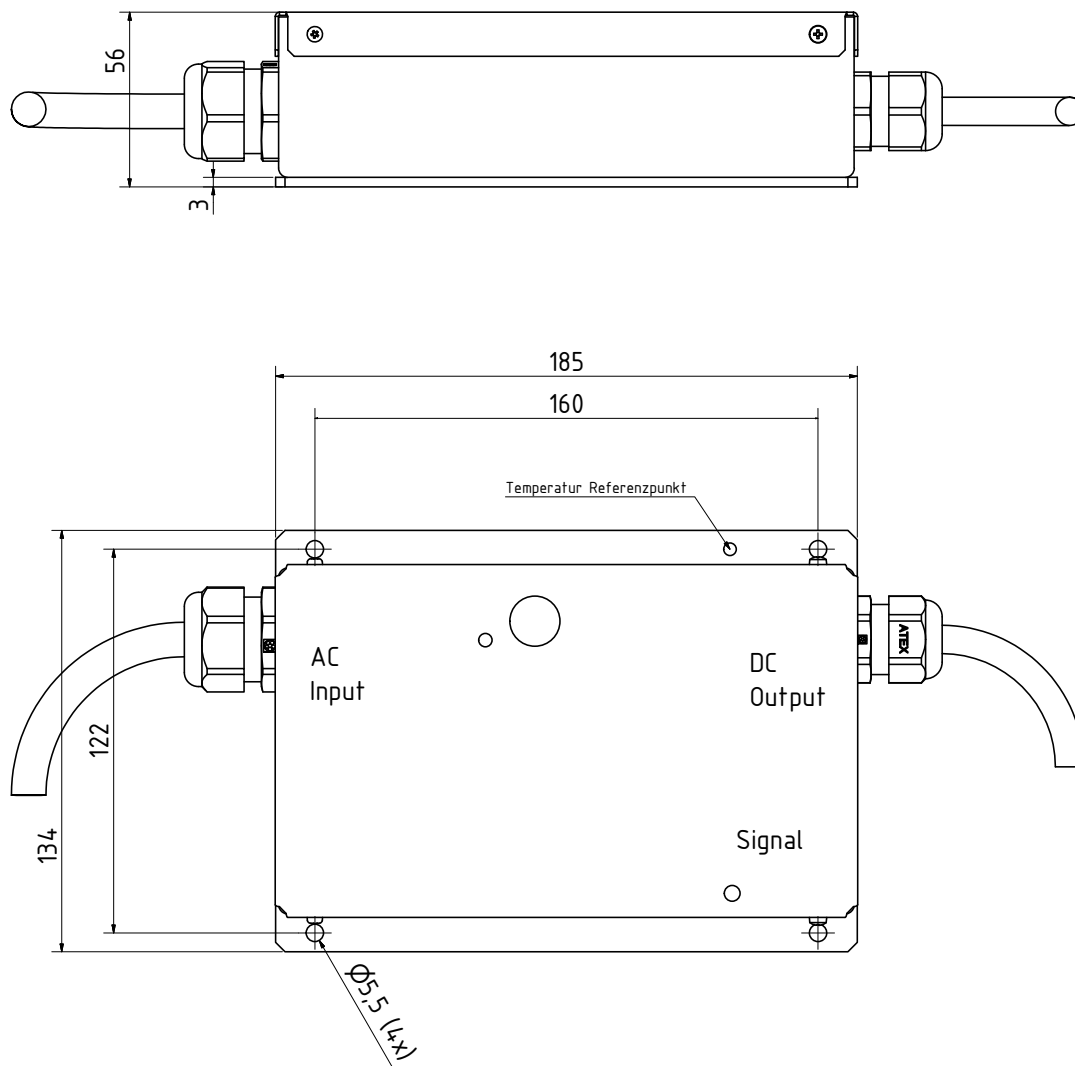
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8 Dimensions

All dimensions are given in millimetres.



9 Important (safety-) notes

Generally it is recommended to use by Deutronic released equipment, only. Because only in this way an appropriate technical suitability and an adequate dimensioning can be ensured for professional use. Equipment and accessories have to be selected and installed in accordance with the requirements and under attention of the existing safety guidelines. Moreover pay attention of a safety interlocksystem at the respective device to ensure the operational safety and to avoid damages. If worn, the cables must be replaced immediately!
Please observe the safety instructions in the manual for this device. You can find these under: www.deutronic.com

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