

## Technical data sheet

Power supply · Compact Economy, 120 W

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Switchmode power supply, PFC, Single-phase  
Input: wide-range input AC 85–264 V, DC 110–345 V  
Output: DC 24 V, 5 A



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### Identification

Type CPSB1-120-24E  
Part No. [723500](#)

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### Product version

Datasheet version 01

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### Input

Number of phases 1  
Rated voltage  $U_N$  AC 120/240 V  
Operation voltage range AC 85–264 V / DC 110–345 V  
Frequency range 47 Hz – 63 Hz  
Rated current  $I_N$  2.1 A @ AC 120 V / 1.2 A @ AC 240 V  
Inrush current  $\leq 30$  A / 0.72 A<sup>2</sup>s  
Internal fuse T3, 15 A/AC 250 V  
External protection Mini-circuit breaker: C 6 A / Fusible link: T 10 A  
Power factor correction P.F.C.  $>0.6$

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### Output

Output voltage/current DC 24 V/5 A  
Rated voltage  $U_N$  DC 24 V  
Rated current  $I_N$  5 A  
Max. output current 7 A, 5 s  
Power Dissipation  $<18$  W  
Setting range  $U_{out\ min.}/U_{out\ max.}$  DC 23–28 V  
Load regulation  $<1$  %  
Ripple and noise  $<60$  mV  
Hold up time  $>20$  ms @ AC 120 V / 50 ms @ AC 230 V  
Parallel / redundant mode Yes/via external decoupling diode e.g. 722999  
Efficiency  $>87$  %

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22.09.2023 • Subject to technical modification

Part No. [723500](#) • Datasheet version: 01

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SYSTEMATIC TECHNOLOGY

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Overtemperature protection	Yes
Over voltage protection	≥DC 33 V
Short circuit	Hiccup Mode

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#### Status indication

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Status indication DC ON LED green	≥21.6 V
Status indication DC LOW LED red	≤21.6 V

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#### Monitoring

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DC ON Control (Rdy)	N/O contact
Switching voltage	AC 300 V / DC 150 V
Switching current	AC/DC 1 A
Switching capacity	300 VA / 30 W
Isolation voltage	AC 500 V

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#### General

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Insulation voltage input / output	DC 4.2 kV
Insulation voltage input / ground	DC 2.2 kV
Insulation voltage output / ground	DC 750 V
Derating	>60 °C: -2.4 W/°C
Cooling	Air convection, 50 mm distance top/bottom, 20 mm side
Housing material	Aluminum
Mounting	DIN rail mountable TS35 (EN 60715)
Installation position	Vertical
Degree of protection	IP20 (IEC 529 / EN 60529)
Protection class	I
Weight/unit	0.45 kg
Connection type	Screw terminal 0.20 mm <sup>2</sup> – 2.5 mm <sup>2</sup> plug-in
Dimensions (w × h × d)	40.0 mm × 115.0 mm × 110.0 mm
PU (units)	1

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#### General ambient conditions

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Operation temperature range	-40 °C ... +70 °C (UL approved up to +60 °C)
Storage temperature range	-40 °C ... +80 °C
Over voltage category	III
Degree of pollution	2
Relative air humidity	5 – 95 % RH, non-condensing

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#### Approvals/Standards

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Approvals	CE UKCA cULus (E249179)
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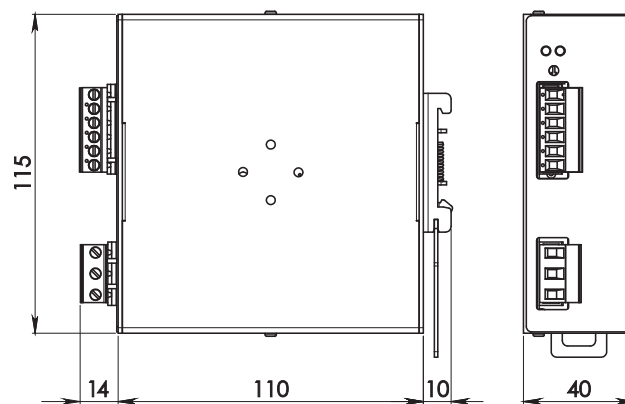
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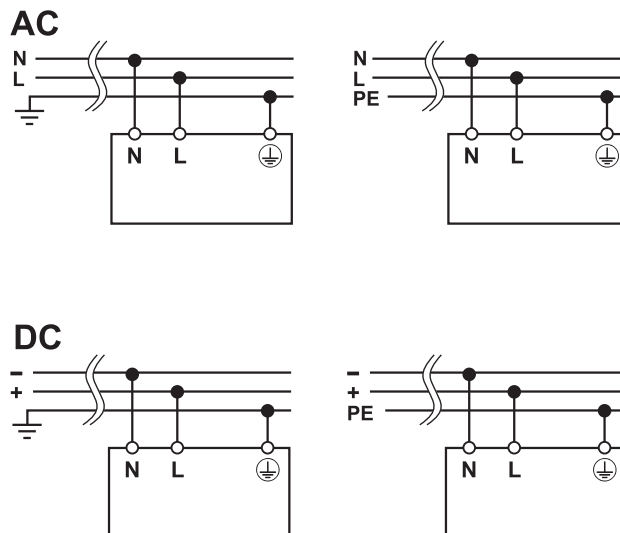
### Standards

UL 508  
IEC/EN 61010-1  
IEC/EN 61010-2-201  
IEC/EN 60950  
EN 55011 (CISPR11) Class A  
EN 55022 (CISPR22) Class A  
EN 61000-4-2 Level 3  
EN 61000-4-3 Level 3  
EN 61000-4-4 Level 3  
EN 61000-4-5 Level 3  
EN 61000-4-11 Level 2  
IEC 60068-2-6 (Vibration sinusoidal), 5-17.8 Hz:  $\pm 1.6$  mm, 17.8-500 Hz: 2 g  
2 hours / axis (X,Y,Z)  
IEC 60068-2-27 (Shock), 30 g 6 ms, 20 g 11 ms, 3 bumps / direction,  
18 bumps total

### Dimensions



### PIN assignment

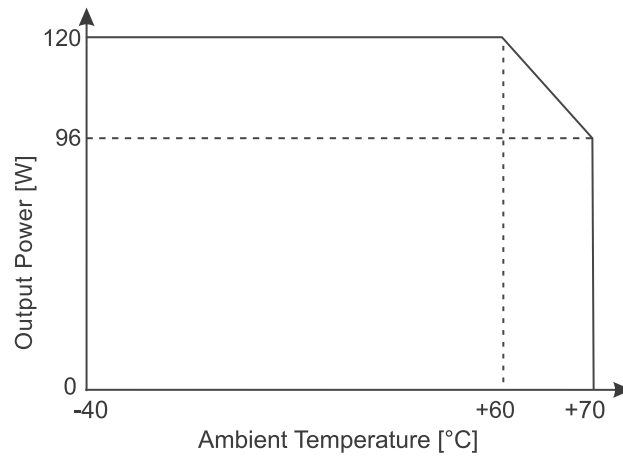


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### Derating



### Short circuit characteristics

#### Hiccup

