

regulated, 120 W



Identification

Type
Part-No.

CPSB1-120-48R
722784

Description

Primary switchmode power supply, PFC, Single-phase
Input: wide-range input AC 90–264 V, DC 110–345 V
Output: 48 V, adjustable

25.08.2017 – Subject to technical modification

Part-No. 722784

USA: LUTZE INC.

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SYSTEMATIC TECHNOLOGY

Technical data sheet - Power supply

Input

Number of phases	1
Rated voltage U_N	AC 120/230 V
Operation voltage range	AC 90–264 V / DC 110–370 V
Line frequency	47 – 63 Hz
Rated current I_N	1.9 A @ AC 115 V / 11 A @ AC 230 V
Inrush current	<20 A
Internal fuse	T3, 15 A/AC 250 V
External fuse	Mini-circuit breaker: C 4 A
Power Factor Correction P.F.C.	>0.6

Output

Rated voltage U_N	DC 48.00 V
Rated current I_N	2.50 A
Max. output current	4 A, 30 s
Short-circuit current	15 A, 50 ms
Heat dissipation	20 W @ AC 120 V, 13 W @ AC 230 V
Setting range $U_{out\ min.}/U_{out\ max.}$	DC 45–55 V
Load regulation	<1 %
Ripple and Noise	30 mV
Hold up time	>17 ms @ AC 120 V / >72 ms @ AC 230 V
Status indication DC ON LED green	≥ 43.2 V
Status indication DC LOW LED red	≤ 43.2 V
Parallel / redundant mode	Yes / decoupling diode contained internally
Efficiency	>86 % @ AC 120 V / >90 % @ AC 230 V
Overtemperature protection	yes
Over voltage protection	yes
Rated over load protection	yes
Short circuit	Hiccup Mode

Monitoring

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

General

Switching frequency	approx. 110 kHz
Insulation voltage input / output	DC 4.2 kV
Insulation voltage input / ground	DC 2.2 kV
Insulation voltage output / ground	DC 750 V

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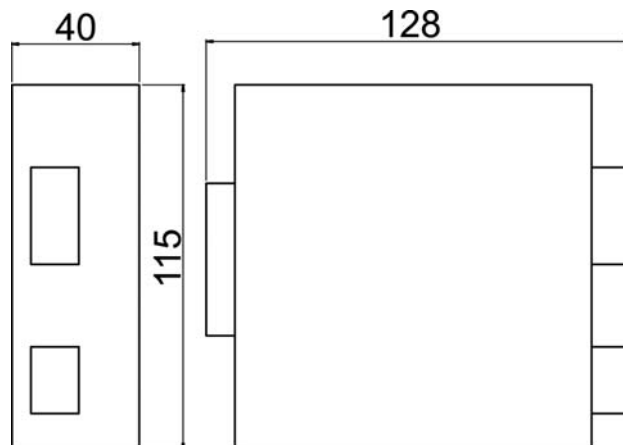


SYSTEMATIC TECHNOLOGY

Technical data sheet · Power supply

Derating	>50 °C: -2.5 W/°C
Operation temperature range	-20 °C ... +60 °C (Derating)
Storage temperature range	-25 °C ... +85 °C
MTBF	>500000 h: SN29500 / >150000 h: MIL HDBK 217F
Relative air humidity	20 – 90 % RH, not condensing
Cooling	Air convection, 50 mm distance top/bottom, 20 mm side
Housing material	Aluminum
Mounting	DIN rail mountable TS35 (EN 60715)
Installation position	vertical
Shock resistance	30 g 6 ms, 20 g 11 ms, 3 shocks/direction, 18 shocks in total, IEC60068-2-27: 2008
Vibration resistance	5 – 17.8 Hz: ±1.6 mm, 17.8 – 500 Hz: 2 g 2 hours/axes X,Y,Z, IEC 60068-2-6: 2007
Protection class	IP20 (IEC 529, EN 60529)
Protection class	I
Over voltage category	III
Degree of pollution	2
Weight	0.400 kg/piece
Connection device	Screw terminal 0.20 mm ² – 2.5 mm ² plug-in
Dimensions (w × h × d)	39.0 × 115.0 × 128.0 mm
Approvals	cULus (E249179)
Standards	IEC 950 EN 60950 UL 60950 EN 61000-6-2 EN 61000-6-4 EN 61000-4-2/3/4/5/6/11
PU	1 piece

Dimensions



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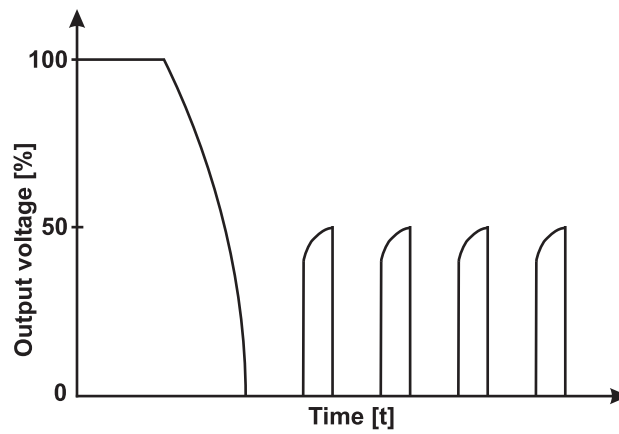
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Short circuit characteristics



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