

Technical data sheet · Power supply

Compact Universal, regulated, 120 W



Identification	Type	CPSB2-120-24
	Part-No.	722995
Description		
Primary switched power supplies, PFC, 1/2-phase		
Input: wide-range input AC 187–550 V, DC 270–725 V		
Output: 24 V, adjustable		

11.03.2020 – Subject to technical modification

Part-No. 722995

USA: LUTZE INC.

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Input

Number of phases	2
Rated voltage U_N	AC 200–500 V
Operation voltage range	AC 187–550 V / DC 270–725 V
Line frequency	47 – 63 Hz
Rated current I_N	1.4 A @ AC 200 V / 0.7 A @ AC 500 V
Inrush current	<20 A @ AC 230 V / <40 A @ AC 500 V
External fuse	Mini-circuit breaker: D 6 A, C 6 A / safety fuse: T 4 A (required)
Power factor correction P.F.C.	>0.55

Output

Rated voltage U_N	DC 24 V
Rated current I_N	5 A
Max. output current	>7.5 A, >30 s
Short-circuit current	>14 A, 400 ms
Heat dissipation	<18 W
Setting range $U_{out\ min.}/U_{out\ max.}$	23-27,5 V
Load regulation	<1 %
Rise time	9 ms (5–95 %) @ 400 V
Ripple and Noise	<100 mV pp
Hold up time	>20 ms @ AC 120 V / >80 ms @ AC 230 V
Status indication DC ON LED green	≥ 21.6 V
Status indication DC LOW LED red	$I_{out} > 110 \% I_N$
Parallel / redundant mode	yes/via external decoupling diode e.g. 722987
Efficiency	>86 %
Over voltage protection	>DC 33 V ($U_A=24$ V)
Rated over load protection	yes
Short circuit	Hiccup Mode

Monitoring

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

General

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: -1.2 W/°C
Operation temperature range	-20 °C ... +70 °C (overtemperature protection)

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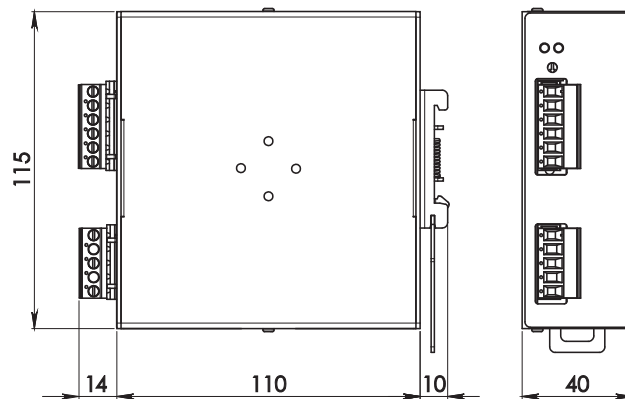


SYSTEMATIC TECHNOLOGY

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Storage temperature range	-40 °C ... +80 °C
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)
Application height	2000 m
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	0.500 kg/piece
Connection type	Screw terminal 0.20 mm ² – 2.5 mm ² AWG 24 – AWG 12 plug-in
Dimensions (w × h × d)	40.0 × 115.0 × 134.0 mm
Certifications	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
MTBF	>500000 h: SN29500 / >150000 h: MIL HDBK 217F
PU	1 piece

Dimensions



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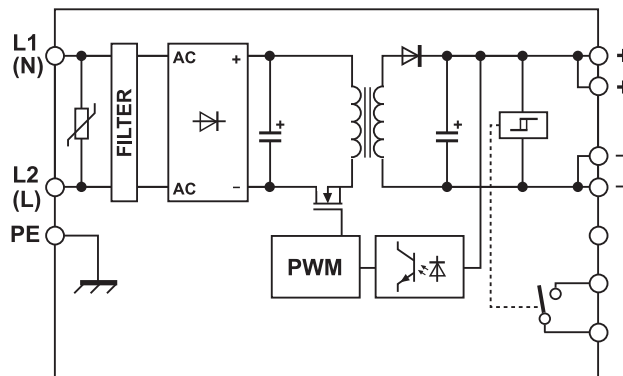
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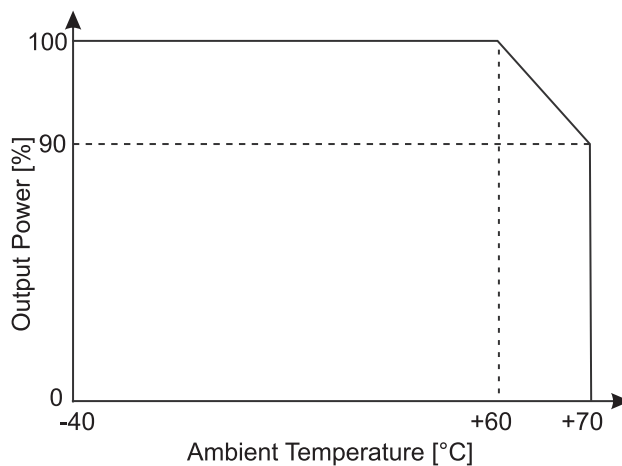
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PIN assignment



Derating



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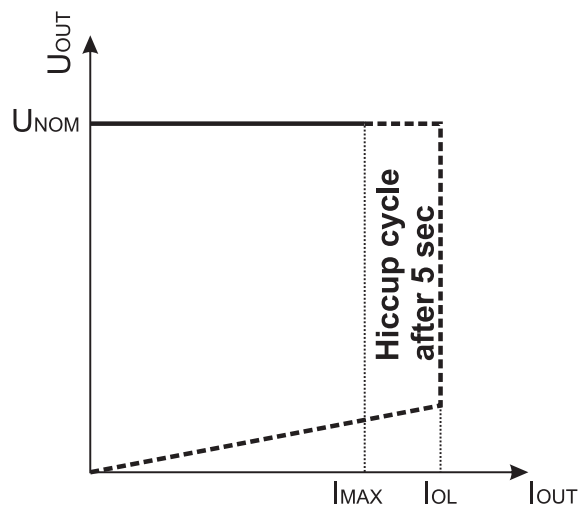


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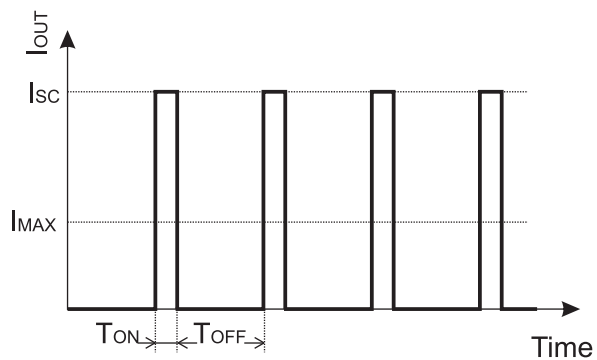
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Short circuit characteristics

Hiccup limitation output characteristic



Short circuit conditions



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