

Technical data sheet · Power supply

Compact 3-phase, regulated, 480 W



Identification	Type	CPSB3-500-24
	Part-No.	722800
Description		
Primary switchmode power supply, PFC, 3-phase		
Input: Wide range input AC 340 - 550 V		
Output: 24 V, adjustable		

11.03.2020 – Subject to technical modification

Part-No. 722800

USA: LUTZE INC.

13330 South Ridge Drive • Charlotte, NC 28273, USA
Tel. +1 (704) 504-0222 • Fax +1 (704) 504-0223
www.lutze.com • info@lutze.com

United Kingdom: LÜTZE Ltd.

Unit 3, Sandy Hill Park
Sandy Way, Amington • GB-Tamworth, Staffs B77 4DU
Tel. +44 (0)1827 31333-0 • Fax +44 (0)1827 31333-2
www.lutze.com • sales.gb@lutze.co.uk

Technical data sheet · Power supply

Input

Number of phases	3
Rated voltage U_N	3 × AC 400–500 V
Operation voltage range	3 × AC 340–550 V
Line frequency	47 – 63 Hz
Rated current I_N	1.3 A @ AC 400 V / 1.1 A @ AC 500 V
Inrush current	<50 A
External fuse	Mini-circuit breaker: 3 × B 16 A, C 10 A (required)
Power factor correction P.F.C.	>0.6

Output

Rated voltage U_N	DC 24 V
Rated current I_N	20 A
Max. output current (limited current)	22 A
Max. output current (HICCUP, 5 sec)	30 A
Heat dissipation	<30 W @ AC 380 V
Setting range $U_{out\ min.}/U_{out\ max.}$	24-28 V
Load regulation	<1 %
Ripple and Noise	100 mV pp
Hold up time	>20 ms @ AC 400 V
Status indication DC ON LED green	≥21.6 V
Status indication DC LOW LED red	≤21.6 V
Parallel / redundant mode	max. 2 devices / via external decoupling diodes e.g. 722987
Efficiency	>94 % @ AC 400 V
Over voltage protection	>DC 33 V ($U_A=24\ V$)
Rated over load protection	yes
Short circuit	adjustable: Hiccup, current limiting, C.C. Modus

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. 70-110 kHz
Insulation voltage input / output	DC 4.2 kV
Insulation voltage input / ground	DC 2.2 kV
Insulation voltage output / ground	DC 750 V
Derating	>50 °C: -4.5 W/°C
Operation temperature range	-40 °C ... +70 °C (UL certified up to +50 °C)

11.03.2020 – Subject to technical modification

Part-No. 722800

USA: LUTZE INC.

13330 South Ridge Drive • Charlotte, NC 28273, USA

Tel. +1 (704) 504-0222 • Fax +1 (704) 504-0223

www.lutze.com • info@lutze.com

United Kingdom: LÜTZE Ltd.

Unit 3, Sandy Hill Park

Sandy Way, Amington • GB-Tamworth, Staffs B77 4DU

Tel. +44 (0)1827 31333-0 • Fax +44 (0)1827 31333-2

www.lutze.com • sales.gb@lutze.co.uk

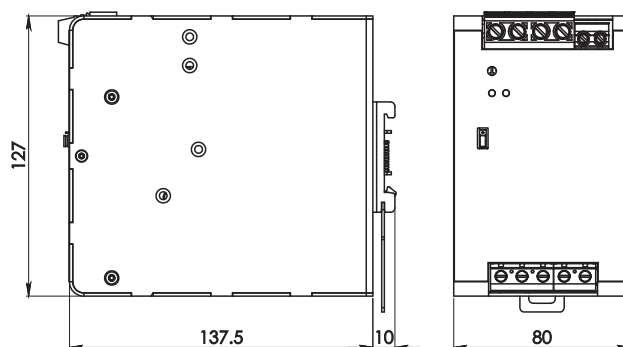


SYSTEMATIC TECHNOLOGY

Technical data sheet · Power supply

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)
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	1.300 kg/piece
Connection type	Screw terminal 0.20 mm ² – 6.0 mm ² max. 0.62 Nm
Dimensions (w × h × d)	80.0 × 127.0 × 147.5 mm
Certifications	cULus (E249179)
Standards	IEC 950 EN 60950 EN 61000-4-2/3/4/5/6/11 EN 61000-6-2 EN 61000-6-4 EN 50178 EN 61558 EN 50081-1 EN 50082-2 EN 55022 Class B
MTBF	>500000 h: SN29500 / >150000 h: MIL HDBK 217F
PU	1 piece

Dimensions



11.03.2020 – Subject to technical modification

Part-No. 722800

USA: LUTZE INC.

13330 South Ridge Drive • Charlotte, NC 28273, USA

Tel. +1 (704) 504-0222 • Fax +1 (704) 504-0223

www.lutze.com • info@lutze.com

United Kingdom: LÜTZE Ltd.

Unit 3, Sandy Hill Park

Sandy Way, Amington • GB-Tamworth, Staffs B77 4DU

Tel. +44 (0)1827 31333-0 • Fax +44 (0)1827 31333-2

www.lutze.com • sales.gb@lutze.co.uk

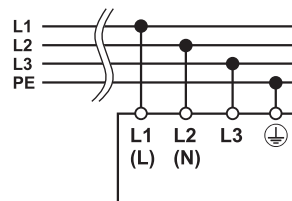
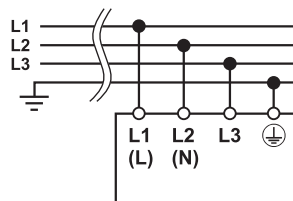


SYSTEMATIC TECHNOLOGY

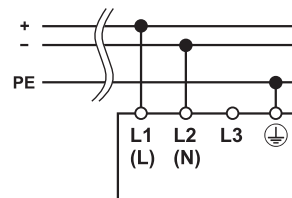
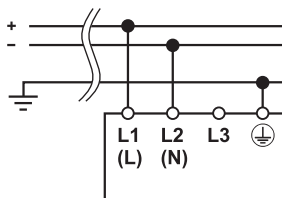
Technical data sheet · Power supply

PIN assignment

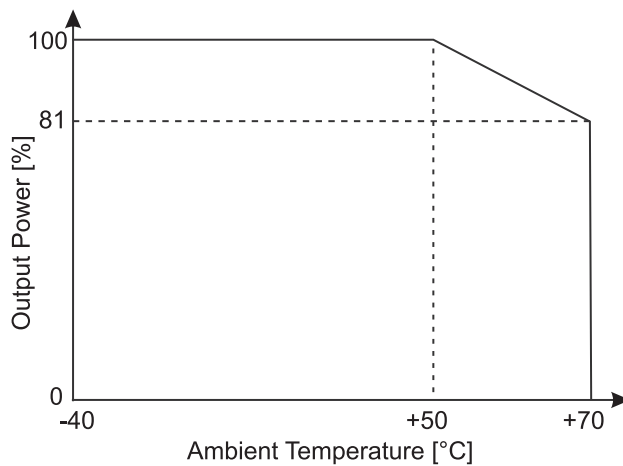
AC Line (3 ~)



DC Line



Derating



11.03.2020 – Subject to technical modification

Part-No. 722800

USA: LUTZE INC.

13330 South Ridge Drive • Charlotte, NC 28273, USA

Tel. +1 (704) 504-0222 • Fax +1 (704) 504-0223

www.lutze.com • info@lutze.com

United Kingdom: LÜTZE Ltd.

Unit 3, Sandy Hill Park

Sandy Way, Amington • GB-Tamworth, Staffs B77 4DU

Tel. +44 (0)1827 31333-0 • Fax +44 (0)1827 31333-2

www.lutze.com • sales.gb@lutze.co.uk



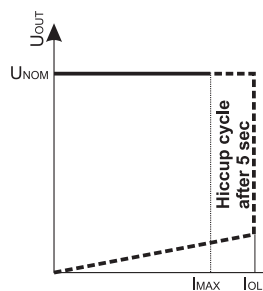
SYSTEMATIC TECHNOLOGY

Technical data sheet · Power supply

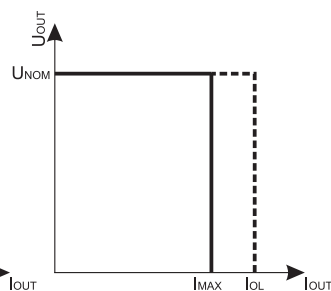
Short circuit characteristics

Limitation output characteristic

Hiccup

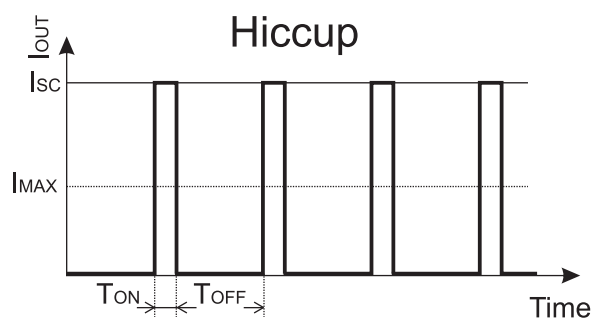


C.C.

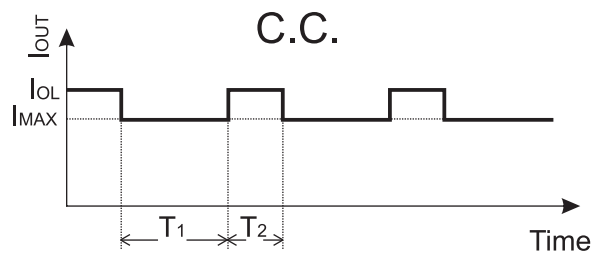


Short circuit conditions

Hiccup



C.C.



11.03.2020 – Subject to technical modification

Part-No. 722800

USA: LUTZE INC.

13330 South Ridge Drive • Charlotte, NC 28273, USA

Tel. +1 (704) 504-0222 • Fax +1 (704) 504-0223

www.lutze.com • info@lutze.com

United Kingdom: LÜTZE Ltd.

Unit 3, Sandy Hill Park

Sandy Way, Amington • GB-Tamworth, Staffs B77 4DU

Tel. +44 (0)1827 31333-0 • Fax +44 (0)1827 31333-2

www.lutze.com • sales.gb@lutze.co.uk



SYSTEMATIC TECHNOLOGY