

Technical data sheet

Power supply · LEPOS Wide Range, 1-/2-phases, regulated, 120 W

Primary switchmode power supply, 1-/2-phase

Input: wide-range input AC 180–550 V, DC 254-780 V

Output: DC 24 V / 5 A, adjustable



Identification

Type	LEPOS-WR-120-24
Part No.	722720

Product version

Datasheet version	01
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Input

Number of phases	2
Rated voltage U_N	One-, two-phase AC 200/500 V
Operation voltage range	AC 180-550 V DC 254-780 V
Frequency range	47 Hz – 63 Hz
Rated current I_N	1.2 A @ AC 230 V 0.7 A @ AC 400 V
Inrush current	50 A @ AC 230 V 50 A @ AC 400 V
Internal fuse	T4,0 A / AC 500 V
External protection	Mini-circuit breaker: C 16 A

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	>6.5 A, >3 s

United Kingdom: LÜTZE Ltd.

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

Germany: Friedrich Lütze GmbH

Postfach 12 24 (PLZ 71366) • Bruckwiesenstraße 17-19 • D-71384 Weinstadt
Tel. +49 (0)7151 6053-0
www.luetze.de • info@luetze.de

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Power Dissipation	10.5 W @ AC 230 V
Setting range $U_{out\ min.}/U_{out\ max.}$	24-28 V
Accuracy	$\pm 2\ \%$
Load regulation	$\pm 0.5\ \%$
Line regulation	$\pm 0.5\ \%$
Rise time	2000 ms @ 230 V / 2000 ms @ 400 V
Temperature coefficient	$\pm 0.03\ \%/^{\circ}\text{C}$
Ripple and noise	$\leq 120\ \text{mV pp}$
Hold up time	10 ms @ 230 V 50 ms @ 400 V
Parallel / redundant mode	Yes/via external decoupling diode e.g. 722999
Efficiency	91 %
Overtemperature protection	95 °C +/- 5 °C, switch-off with auto reset
Over voltage protection	29-33 V, switch-off in case of overvoltage, switch-on again after input voltage reset
Rated over load protection	130 % for 3 s, then shutdown with auto-reset
Short circuit	Current limit

Status indication

Status indication DC ON LED green DC 22-28 V

Monitoring

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

General

Insulation voltage input / output	AC 3.0 kV _{eff}
Insulation voltage input / ground	AC 2.0 kV _{eff}
Insulation voltage output / ground	AC 500 V / DC 500 V
Insulation resistance at DC 500 V	100 M Ω
Derating	>60 °C: -6 W/°C
Cooling	Air convection, 15 mm distance right/left, 40 mm top, 20 mm bottom
Housing material	Metal
Mounting	DIN rail mountable TS35 (EN 60715)
Max. altitude operation	2000 m
Installation position	Vertical
MTBF	>268,100 h: MIL HDBK 217F
Degree of protection	IP20
Protection class	I
Weight/unit	0.65 kg
Connection type	Screw terminal 0.20 mm ² – 2.5 mm ² AWG 24 – AWG 12

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Dimensions (w × h × d)	40.0 mm × 125.0 mm × 113.0 mm
PU (units)	1

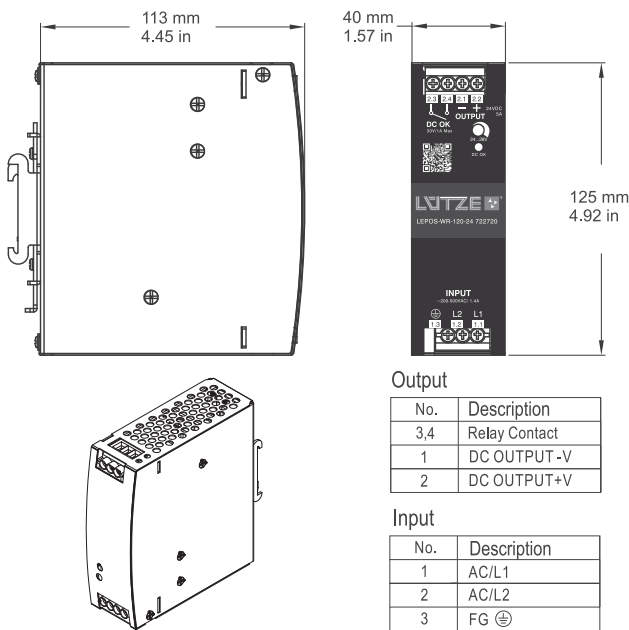
General ambient conditions

Operation temperature range	-25 °C ... +70 °C (Derating)
Storage temperature range	-40 °C ... +85 °C
Over voltage category	III
Degree of pollution	2
Relative air humidity	20 – 90 % RH, non-condensing

Certifications/Standards

Conformity	CE
Certifications	cULus (E249179)
Standards	EN 55032:2015+A11:2020 EN 55035:2017+A11:2020 EN 61000-3-3:2013+A2:2021 EN 61010-1:2010+A1:2019+AC:2019 EN IEC 61000-3-2:2019+A1:2021 UL 61010-1:2019 UL 61010-2-201:2018

Dimensions



Use

DC OK Relay Contact

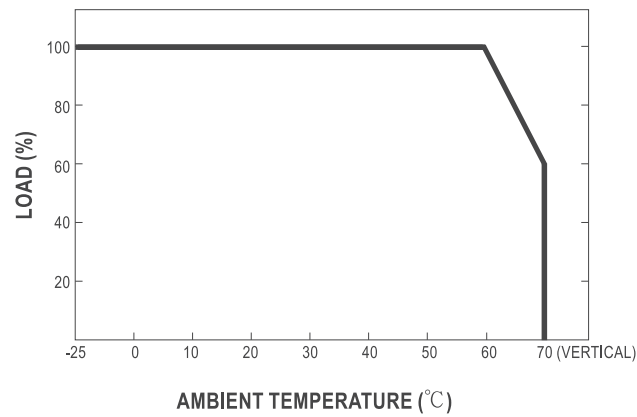
Contact Close	PSU turns ON / DC OK.
Contact Open	PSU turns OFF / DC Fail.
Contact Ratings (max.)	30V/1A resistive load.

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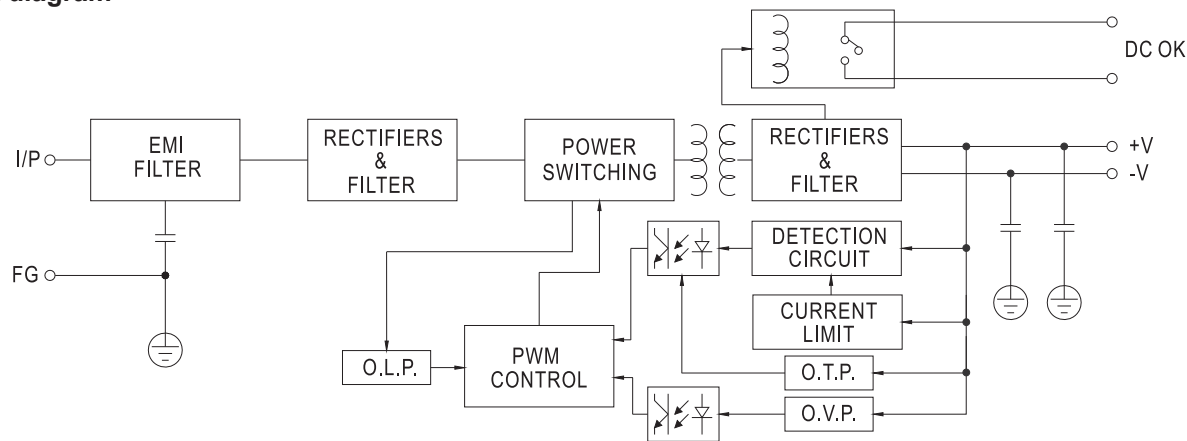
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Derating

Deduction curve and temperature



Circuit diagram



Characteristic

Minus output and input voltage curves

