

Technical data sheet

Power supply · LEPOS Basic, 1-phase, regulated, 480 W

Primary switchmode power supply, Single-phase
Input: wide-range input AC 90–264 V, DC 127–370 V
Output: DC 24 V / 20 A, adjustable



Identification

Type	LEPOS-BC-480-24
Part No.	722712

Product version

Datasheet version	00
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Input

Number of phases	1
Rated voltage U_N	AC 100/240 V
Operation voltage range	AC 90–264 V / DC 127–370 V
Frequency range	47 Hz – 63 Hz
Rated current I_N	4.8 A @ AC 115 V 2.4 A @ AC 230 V
Inrush current	20 A @ AC 115 V 35 A @ AC 230 V
Internal fuse	T5,0 A / AC 250 V
External protection	Mini-circuit breaker: C 16 A
Power factor correction P.F.C.	>0.99 @ AC 115V / >0.94 @ AC 230V

Output

Output voltage/current	DC 24 V/20 A
Rated voltage U_N	DC 24 V
Rated current I_N	20 A
Max. output current	>26 A, >3 s
Power Dissipation	36 W @ AC 230 V

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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Setting range $U_{out\ min.}/U_{out\ max.}$	24-28 V
Accuracy	$\pm 2\ \%$
Load regulation	$\pm 1\ \%$
Line regulation	$\pm 0.5\ \%$
Rise time	1500 ms (setup), 100 ms (switch-on time) @ AC 230 V (at full load) / 3000 ms (setup), 100 ms (switch-on time) @ AC 115 V (at full load)
Temperature coefficient	$\pm 0.03\ \%/^{\circ}\text{C}$
Ripple and noise	<150 mV pp
Hold up time	16 ms @ AC 230 V 16 ms @ AC 115 V (at full load)
Parallel / redundant mode	Yes/via external decoupling diode e.g. 722999
Efficiency	92 %
Overtemperature protection	105 °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	150 % 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	>50 °C: -12 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	>150,000 h, MIL-HDBK-217 (25 °C)
Degree of protection	IP20
Protection class	I
Weight/unit	1.5 kg

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Connection type	Screw terminal 0.20 mm² – 2.5 mm² AWG 24 – AWG 12
Dimensions (w × h × d)	85.5 mm × 125.0 mm × 129.0 mm
PU (units)	1

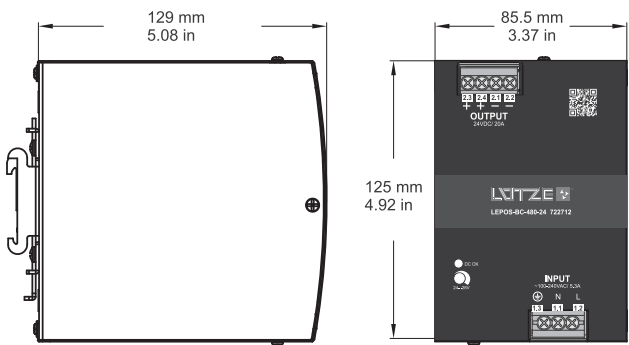
General ambient conditions

Operation temperature range	-20 °C ... +70 °C (Derating)
Storage temperature range	-40 °C ... +85 °C
Over voltage category	III
Degree of pollution	2
Relative air humidity	10 % – 95 %, without condensation

Certifications/Standards

Conformity	CE
Certifications	cULus (E249179)
Standards	EN 55032:2015+A11:2020 EN 55035:2017+A11:2020 EN 62368-1:2014/AC:2015 EN IEC 62368-1:2020+A11:2020 EN IEC 61000-3-2:2019+A1:2021 EN 61000-3-3:2013+A1:2019+A2:2021 UL 61010-1:2019 UL 61010-2-201:2018

Dimensions



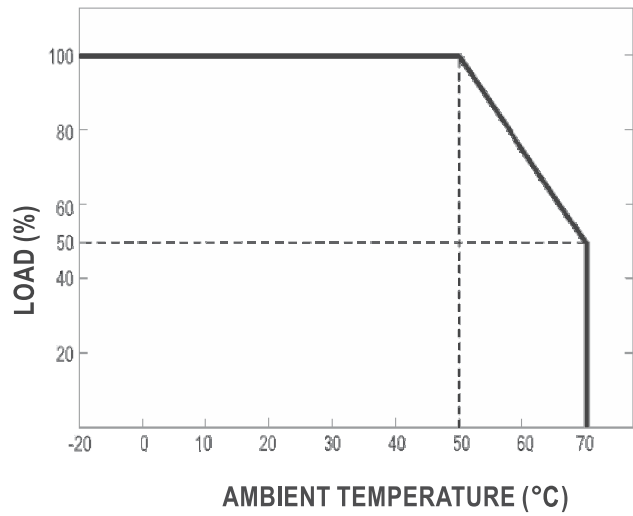
Output / Ausgang / Sortie

Connection	Description
Anschluss	Beschreibung
Connexion	Description
2.3, 2.4	DC OUTPUT+
2.1, 2.2	DC OUTPUT-

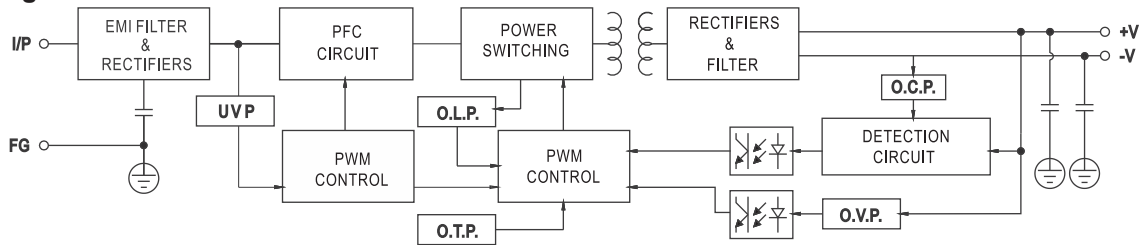
Input / Eingang / Entrée

Connection	Description
Anschluss	Beschreibung
Connexion	Description
1.3	Ⓢ
1.1	AC/N or DC -
1.2	AC/L or DC +

Derating



Circuit diagram



Characteristic

