

Technical data sheet

Power supply · LEPOS Basic, 1-phase, regulated, 120 W

Primary switchmode power supply, Single-phase
Input: wide-range input AC 90–264 V, DC 127–370 V
Output: DC 12 V / 10 A, adjustable



Identification

Type	LEPOS-BC-120-12
Part No.	722745

Product version

Datasheet version	01
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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	2.25 A @ AC 115 V 1.3 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

Output

Output voltage/current	DC 12 V/10 A
Rated voltage U_N	DC 12 V
Rated current I_N	10 A
Max. output current	>13 A, >3 s
Power Dissipation	36 W @ AC 230 V
Setting range $U_{out\ min.}/U_{out\ max.}$	12–14 V

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Accuracy	±2 %
Load regulation	±1 %
Line regulation	±0.5 %
Rise time	1200 ms (setup), 60 ms (switch-on time) @ AC 230 V (at full load) / 2500 ms (setup), 60 ms (switch-on time) @ AC 115 V (at full load)
Temperature coefficient	±0.03 % / °C
Ripple and noise	≤100 mV pp
Hold up time	16 ms @ AC 230 V 10 ms @ AC 115 V (at full load)
Parallel / redundant mode	Yes/via external decoupling diode e.g. 722999
Efficiency	85.5 %
Overtemperature protection	95 °C +/- 5 °C, switch-off with auto reset
Over voltage protection	14–17 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	Hiccup (short circuit)

Status indication

Status indication DC ON LED green DC 10–14 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 MΩ
Derating	>50 °C: -3 W/°C
Cooling	Air convection, 5 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	>450,000 h, MIL-HDBK-217 (25 °C)
Degree of protection	IP20
Protection class	I
Weight/unit	0.6 kg
Connection type	Screw terminal 0.20 mm ² – 2.5 mm ² AWG 24 – AWG 12
Dimensions (w × h × d)	40.0 mm × 125.0 mm × 113.0 mm
PU (units)	1

General ambient conditions

Operation temperature range	-20 °C ... +70 °C (Derating)
Storage temperature range	-40 °C ... +85 °C

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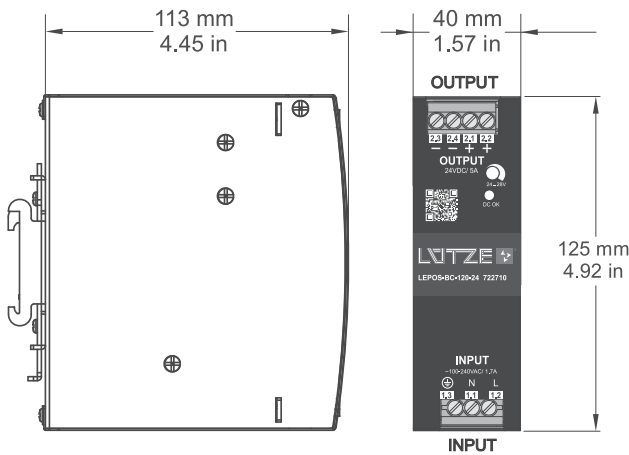
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Over voltage category	III
Degree of pollution	2
Relative air humidity	10 % – 95 %, without condensation

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 508

Dimensions



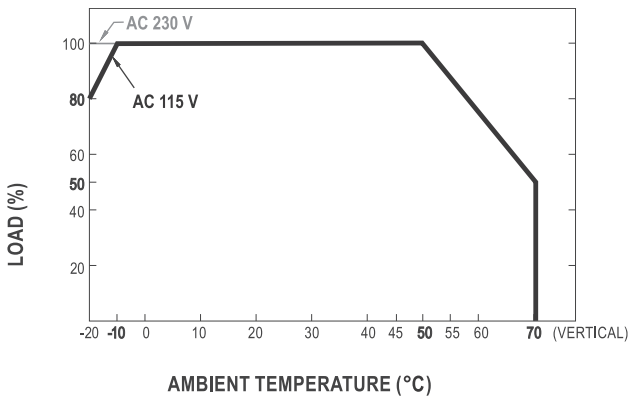
Output / Ausgang / Sortie

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

Input / Eingang / Entrée

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

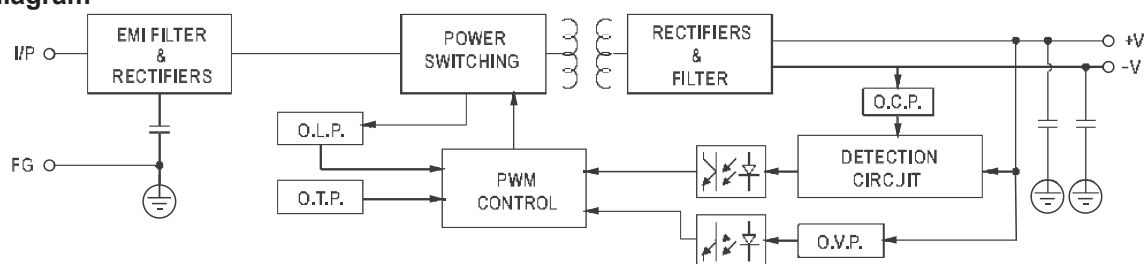
Derating



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Circuit diagram



Characteristic

