

Technical data sheet

Power supply · Compact Economy, 240 W

Switchmode power supply, PFC, Single-phase

Input: AC 90–132 V, AC 187–264 V, DC 270–345 V

Output: DC 48 V, 5 A



Identification

Type CPSB1-240-48R
Part No. [722786](#)

Product version

Datasheet version 01

Input

Number of phases 1
Rated voltage U_N AC 120 / 230 V (manual)
Operation voltage range AC 90–132 V / AC 187–264 V / DC 270–345 V
Frequency range 47 Hz – 63 Hz
Rated current I_N 4 A @ AC 115 V / 2 A @ AC 230 V
Inrush current ≤ 32 A / 1.18 A²s
Internal fuse T6, 3 A/AC 250 V
External protection Mini-circuit breaker: C 10 A / Safety fuse: T 10 A
Power factor correction P.F.C. >0.6

Output

Output voltage/current DC 48 V/5 A
Rated voltage U_N DC 48 V
Rated current I_N 5 A
Max. output current 6.8 A, 5 s
Short-circuit current 20 A
Power Dissipation <33 W
Setting range $U_{out\ min.}/U_{out\ max.}$ 45-55 V
Load regulation <1.5 %
Ripple and noise 100 mV
Hold up time >60 ms @ AC 120 V / >70 ms @ AC 230 V
Parallel / redundant mode Yes / decoupling diode contained internally

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

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Efficiency	88 %
Over voltage protection	Yes
Rated over load protection	Yes
Short circuit	Hiccup Mode

Status indication

Status indication DC ON LED green	≥43.2 V
Status indication DC LOW LED red	≤43.2 V

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. 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	>60 °C: -5 W/°C
Cooling	Air convection, 100 mm distance top/bottom, 20 mm side
Housing material	Aluminum
Mounting	DIN rail mountable TS35 (EN 60715)
Installation position	Vertical
MTBF	>500000 h: SN29500 / >500000 h: MIL HDBK 217F
Degree of protection	IP20 (IEC 529 / EN 60529)
Protection class	I
Weight/unit	0.75 kg
Connection type	Screw terminal 0,20 mm ² – 2,5 mm ² plug-in max. 0.56 Nm
Dimensions (w × h × d)	63.0 mm × 140.0 mm × 117.0 mm
PU (units)	1

General ambient conditions

Operation temperature range	-40 °C ... +70 °C (UL approved up to +50 °C)
Storage temperature range	-40 °C ... +80 °C
Over voltage category	III
Degree of pollution	2
Relative air humidity	5 – 95 % RH, non-condensing
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

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Shock resistance 30 g 6 ms, 20 g 11 ms, 3 shocks/direction, 18 shocks in total, IEC60068-2-27

Approvals/Standards

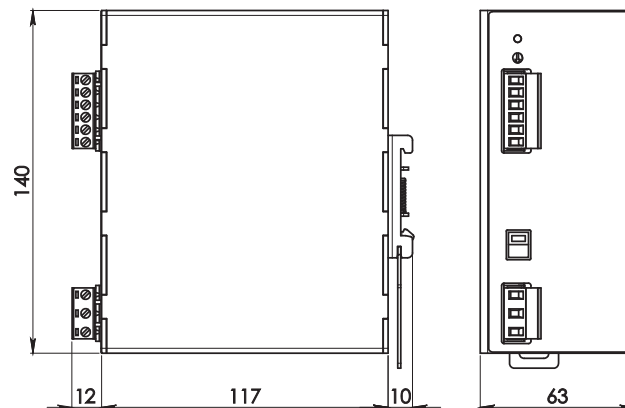
Approvals

CE
UKCA
cULus (E249179)

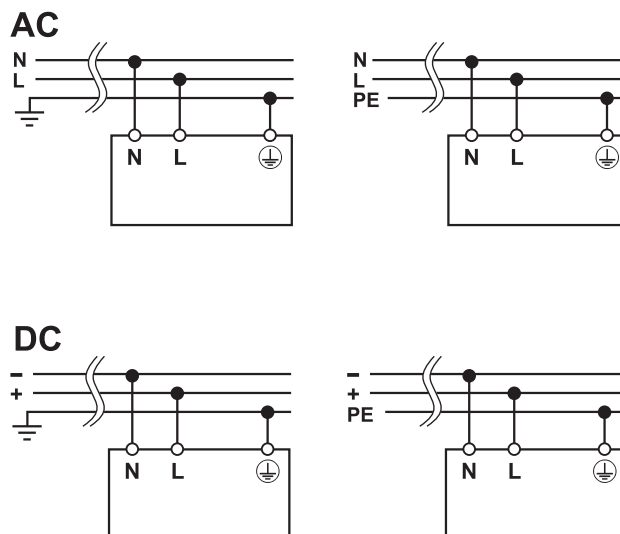
Standards

UL 508
IEC/EN 61010-1
IEC/EN 61010-2-201
IEC/EN 60950
EN 55011 (CISPR11) Class A
EN 55022 (CISPR22) Class A
EN 61000-4-2 Level 3
EN 61000-4-3 Level 3
EN 61000-4-4 Level 3
EN 61000-4-5 Level 3
EN 61000-4-11 Level 2
IEC 60068-2-6 (Vibration sinusoidal), 5-17.8 Hz: ± 1.6 mm, 17.8-500 Hz: 2 g
2 hours / axis (X,Y,Z)
IEC 60068-2-27 (Shock), 30 g 6 ms, 20 g 11 ms, 3 bumps / direction,
18 bumps total

Dimensions



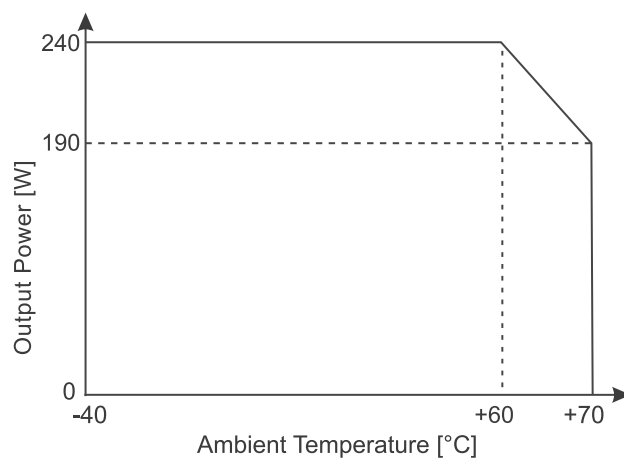
PIN assignment



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Derating



Short circuit characteristics

Hiccup

