

Technical data sheet

Power supply · Compact Universal, 120 W

Primary switched power supplies, PFC, 1/2-phase

Input: wide-range input AC 187–550 V, DC 270–725 V

Output: DC 24 V, 5 A



Identification

Type	CPSB2-120-24
Part No.	722995

Product version

Datasheet version	02
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Input

Number of phases	2
Rated voltage U_N	AC 200–500 V
Operation voltage range	AC 187–550 V / DC 270–725 V
Frequency range	47 Hz – 63 Hz
Rated current I_N	1.4 A @ AC 200 V / 0.7 A @ AC 500 V
Inrush current	<21 A
External protection	Mini-circuit breaker: D 6 A, C 6 A / safety fuse: T 4 A (required)
Power factor correction P.F.C.	>0.55

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	7.5 A, 30 s
Short-circuit current	14 A
Power Dissipation	<17 W
Setting range $U_{out\ min.}/U_{out\ max.}$	23-28 V
Load regulation	<1 %

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Ripple and noise	<110 mV pp
Hold up time	>17 ms @ AC 120 V / >60 ms @ AC 230 V
Parallel / redundant mode	Yes/via external decoupling diode e.g. 722999
Efficiency	88 %
Over voltage protection	>DC 33 V
Rated over load protection	Yes
Short circuit	Hiccup Mode

Status indication

Status indication DC ON LED green	≥21.6 V
Status indication DC LOW LED red	$I_{out} > 110 \% I_N$

Monitoring

DC ON Control (Rdy)	N/O contact
Switching voltage	AC/DC 300 V / DC 150 V
Switching current	AC/DC 1 A
Switching capacity	300 VA / 30 W
Isolation voltage	AC 500 V

General

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: -1.2 W/°C
Cooling	Air convection, 50 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	0.5 kg
Connection type	Screw terminal 0.20 mm ² – 2.5 mm ² AWG 24 – AWG 14 Plug-in
Strip length	6.0 mm / 0.24 in
Screwdriver	3,0 × 0,5 mm
Tightening torque	0.5 – 0.6 Nm / 4.42 – 5.30 lbf in
Dimensions (w × h × d)	40.0 mm × 115.0 mm × 110.0 mm
PU (units)	1

General ambient conditions

Operation temperature range	-20 °C ... +70 °C (overtemperature protection)
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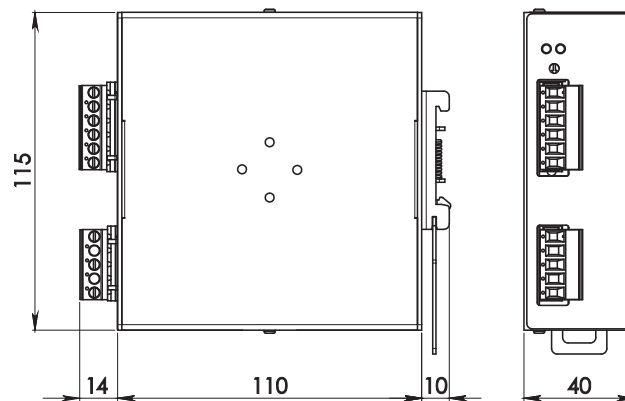
Power supply · Compact Universal, 120 W

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

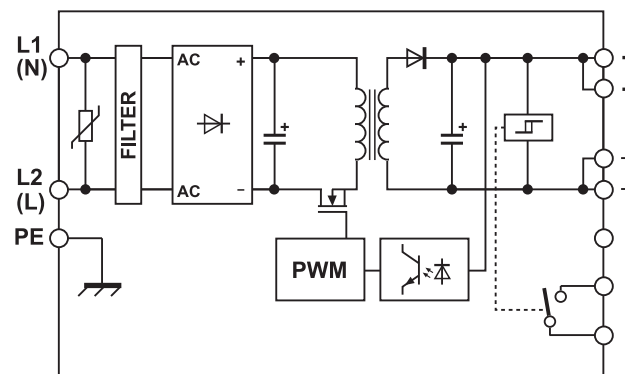
Certifications/Standards

Certifications	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 4 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

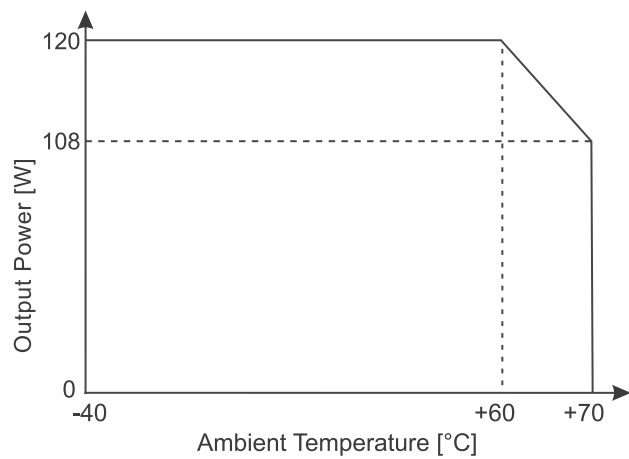
Dimensions



PIN assignment

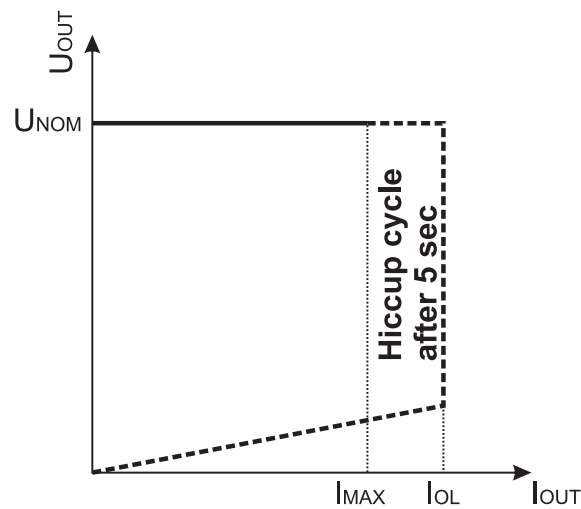


Derating



Short circuit characteristics

Hiccup limitation output characteristic



Short circuit conditions

