

Technical data sheet

Power supply · Compact 3-phase, 960 W

Primary switchmode power supply, PFC, 3-phase

Input: Wide range input AC 340 - 550 V

Output: DC 24 V, 40 A



Identification

Type CPSB3-960-24
Part No. [722811](#)

Product version

Datasheet version 01

Input

Number of phases 3
Rated voltage U_N AC 400–500 V
Operation voltage range AC 340–550 V / DC 520–725 V
Frequency range 47 Hz – 63 Hz
Rated current I_N 2.4 A @ AC 400 V / 2.1 A @ AC 500 V
Inrush current ≤ 50 A / 1.86 A²s
External protection Mini-circuit breaker: 3 × C 10 A / safety fuse: 3 × T 10 A (required)
Power factor correction P.F.C. > 0.7

Output

Output voltage/current DC 24 V/40 A
Rated voltage U_N DC 24 V
Rated current I_N 40 A
Max. output current (limited current) 44 A
Max. output current (HICCUP, 5 sec) 60 A
Power Dissipation < 78 W
Setting range $U_{out \min.}/U_{out \max.}$ 23-28 V
Load regulation < 1 %

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Ripple and noise	<150 mV pp
Hold up time	>15 ms
Parallel / redundant mode	Max. 2 devices / via external decoupling diodes e.g. 722999
Efficiency	>92.5 %
Over voltage protection	≥DC 33 V
Rated over load protection	> 90°C, auto-reset
Short circuit	Adjustable: Hiccup, current limiting

Status indication

Status indication DC ON LED green	≥21.6 V
Status indication DC LOW LED red	≤21.6 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. 70 - 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	>45 °C: -15 W/°C
Cooling	Air convection, forced cooling >50°C, 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	1.3 kg
Connection type	Screw terminal 0.20 mm ² – 10.0 mm ² max. 0.62 Nm
Dimensions (w × h × d)	80.0 mm × 127.0 mm × 137.5 mm
PU (units)	1

General ambient conditions

Operation temperature range	-40 °C ... +70 °C (UL approved up to +45 °C)
Storage temperature range	-40 °C ... +80 °C
Over voltage category	III

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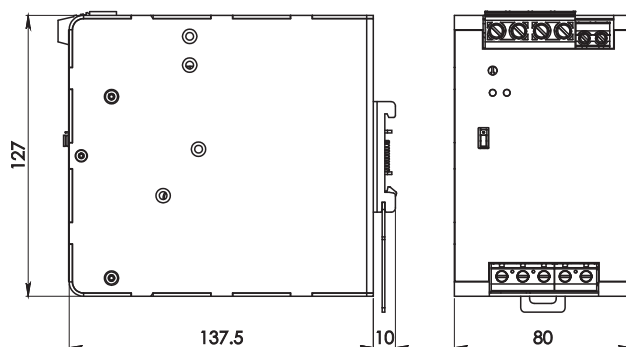
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Degree of pollution	2
Relative air humidity	5 – 95 % RH, non-condensing
Vibration resistance	5 – 17.8 Hz: ± 1.6 mm, 17.8 – 500 Hz: 2 g 2 hours/axes X,Y,Z, IEC 60068-2-6
Shock resistance	30 g 6 ms, 20 g 11 ms, 3 shocks/direction, 18 shocks in total, IEC60068-2-27

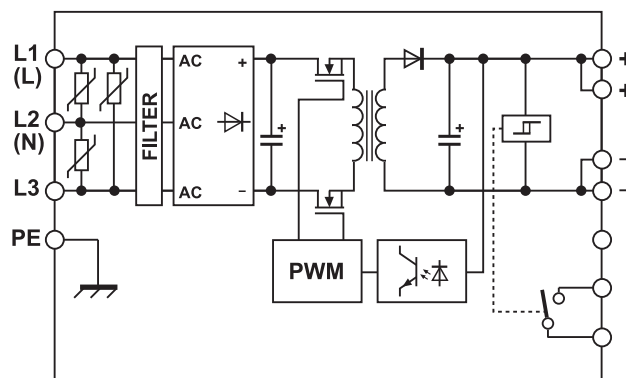
Certifications/Standards

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

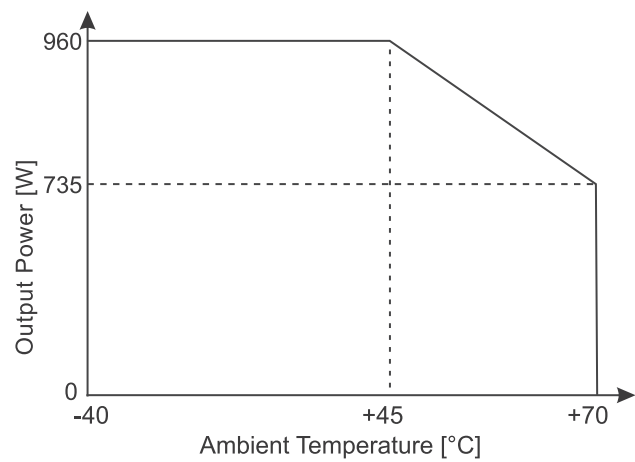
Dimensions



PIN assignment



Derating

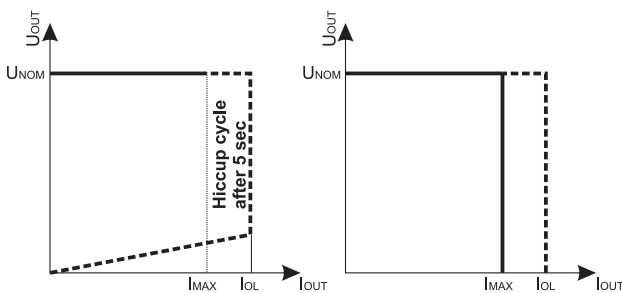


Short circuit characteristics

Limitation output characteristic

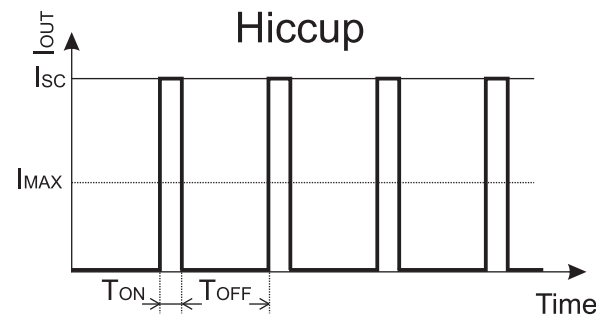
Hiccup

C.C.



Short circuit conditions

Hiccup



C.C.

