

# MINI-PS- 12- 24DC/24DC/1


Order No.: 2866284



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DC-DC converter, primary switched mode, slimline design, input: 12-24 V DC, output: 24 V DC / 1 A



Commercial data	
GTIN (EAN)	 4 017918 960902
sales group	H051
Pack	1 pcs.
Customs tariff	85044082
Catalog page information	Page 610 (IF-2011)

### Product notes

WEEE/RoHS-compliant since:  
07/10/2006



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## Technical data

Input data	
Nominal input voltage	12 V DC ... 24 V DC
DC input voltage range	10 V DC ... 32 V DC
DC frequency range	0 Hz

Current consumption	Approx. 2.6 A (12 V DC)
	Approx. 1.3 A (24 V DC)
Inrush surge current	< 15 A (typical)
Power failure bypass	> 3 ms (12 V DC)
	> 20 ms (24 V DC)
Input fuse	6.3 A (slow-blow, internal)

#### Output data

Nominal output voltage	24 V DC $\pm$ 1%
Setting range of the output voltage	22.5 V DC ... 28.5 V DC (> 24 V constant capacity)
Output current	1 A (-25 °C ... 60 °C)
Derating	60 °C ... 70 °C (2.5%/K)
Connection in parallel	Yes, for assembling redundant systems and increasing efficiency
Connection in series	Yes
Residual ripple	< 30 mV <sub>PP</sub> (20 MHz)
Peak switching voltages nominal load	< 100 mV <sub>PP</sub> (20 MHz)
Maximum power dissipation idling	< 1.2 W
Power loss nominal load max.	< 5 W

#### General data

Width	22.5 mm
Height	99 mm
Depth	107 mm
Net weight	0.2 kg
Operating voltage display	Green LED
Efficiency	> 83 % (at 24 V DC and nominal values)
Insulation voltage input/output	1 kV (routine test)
	1.5 kV (type test)
Degree of protection	IP20
Protection class	III
MTBF (IEC 61709, SN 29500)	> 500000 h
Ambient temperature (operation)	-25 °C ... 70 °C (> 60 °C derating)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	$\leq$ 95 % (at 25 °C, no condensation)
Mounting position	horizontal DIN rail NS 35, EN 60715
Assembly instructions	Can be aligned: Horizontal 0 cm, vertical 5 cm

Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Noise emission	EN 50081-2
Noise immunity	EN 61000-6-2:2005
Low Voltage Directive	Conformance with LV directive 2006/95/EC
Standard - Safety of transformers	EN 61558-2-17
Standard - Electrical safety	EN 60950-1/VDE 0805 (SELV)
Shipbuilding approval	Germanischer Lloyd (EMC 2)
Standard – Electronic equipment for use in electrical power installations and their assembly into electrical power installations	EN 50178/VDE 0160 (PELV)
Standard - Safe isolation	DIN VDE 0100-410
	DIN VDE 0106-101
UL approvals	UL/C-UL listed UL 508
	UL/C-UL Recognized UL 60950
	UL/C-UL Listed UL 1604 Class I, Division 2, Groups A, B, C, D

**Connection data, input**

Connection method	Pluggable screw connection
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	14
Stripping length	7 mm
Screw thread	M3

**Connection data, output**

Connection method	Pluggable screw connection
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	14
Stripping length	7 mm

### Signaling

Output name	DC OK active
Output description	$U_{OUT} > 21.5 \text{ V}$ : High signal
Maximum switching voltage	$\leq 24 \text{ V DC}$
Output voltage	+ 24 V (signal)
Continuous load current	$\leq 20 \text{ mA}$
Status display	"DC OK" LED green
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	14
Tightening torque, min	0.5 Nm
Tightening torque max	0.6 Nm
Screw thread	M3

### Certificates / Approvals

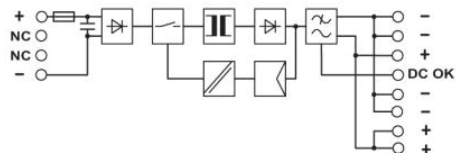


Certification CUL, CUL Listed, GL, UL, UL Listed

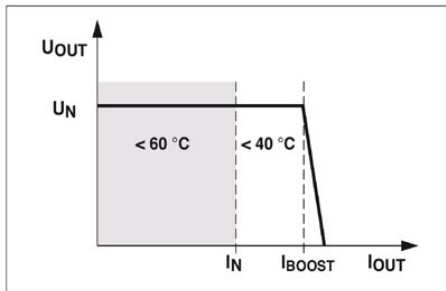
Certification Ex: CUL-EX LIS, UL-EX LIS

### Diagrams/Drawings

Block diagram



Diagram



POWER BOOST

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