

Power supply unit - MINI-PS-100-240AC/24DC/1 - 2938840

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DIN rail power supply unit 24 V DC/1 A, primary-switched mode, slim design



Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	263.6 g
Country of origin	China

Technical data

Dimensions

Width	22.5 mm
Height	99 mm
Depth	114.5 mm

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C (> 60 °C Derating: 2,5 %/K)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	95 % (at 25 °C, non-condensing)
Noise immunity	EN 61000-6-3:2007/A1:2011

Input data

Nominal input voltage range	100 V AC ... 240 V AC
Input voltage range	85 V AC ... 264 V AC
	90 V DC ... 350 V DC
AC frequency range	45 Hz ... 65 Hz
Frequency range DC	0 Hz

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Input data

Current consumption	0.5 A (85 V AC)
	0.2 A (264 V AC)
	approx. 0.4 A (90 V DC)
	approx. 0.1 A (350 V DC)
Inrush surge current	< 15 A (typical)
Power failure bypass	> 20 ms (120 V AC)
	> 110 ms (230 V AC)
Input fuse	1.25 A (slow-blow, internal)

Output data

Nominal output voltage	24 V DC $\pm 1\%$
Setting range of the output voltage (U_{Set})	22.5 V DC ... 28.5 V DC (> 24 V DC, constant capacity restricted)
Nominal output current (I_N)	1 A (up to 60°C)
POWER BOOST (I_{Boost})	1.3 A
Connection in parallel	Yes, for assembling redundant systems and increasing efficiency
Connection in series	Yes
Residual ripple	< 100 mV _{PP}
Output power	24 W
Typical response time	< 0.2 s
Peak switching voltages nominal load	< 100 mV _{PP} (20 MHz)
Maximum power dissipation in no-load condition	< 1.4 W
Power loss nominal load max.	< 4.5 W

General

Net weight	0.2 kg
Operating voltage display	Green LED
Efficiency	> 80 % (for 230 V AC and nominal values)
Insulation voltage input/output	3 kV (routine test)
	3 kV (type test)
Protection class	II (in closed control cabinet)
MTBF (IEC 61709, SN 29500)	> 500000 h
Mounting position	On horizontal DIN rail NS 35 in acc. with EN 60715
Assembly instructions	Can be aligned: Vertical with spacing = 5 cm, horizontal with zero spacing

Connection data, input

Connection method	Pluggable screw connection
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section flexible min.	0.2 mm ²

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Connection data, input

Conductor cross section flexible max.	2.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG 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 ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	14
Stripping length	7 mm

Signaling

Output name	Active
Output description	U _{OUT} > 21.5 V: High signal
Output voltage	+ 24 V (Signal)
Continuous load current	max. 20 mA
Status display	Green LED (U _{out} > 21,5 V DC: LED permanently lit)

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Noise emission	EN 55011 (EN 55022)
Noise immunity	EN 61000-6-3:2007/A1:2011
Connection in acc. with standard	CUL
Standard - Electrical safety	EN 60950-1/VDE 0805 (SELV)
Standard - Safe isolation	DIN VDE 0100-410
UL approvals	UL/C-UL Listed ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D

Classifications

eCl@ss

eCl@ss 4.0	27040702
eCl@ss 4.1	27040702
eCl@ss 5.0	27242213
eCl@ss 5.1	27242213

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Classifications

eCl@ss

eCl@ss 6.0	27049005
eCl@ss 7.0	27049002
eCl@ss 8.0	27049002
eCl@ss 9.0	27040701

ETIM

ETIM 2.0	EC001039
ETIM 3.0	EC001039
ETIM 4.0	EC000599
ETIM 5.0	EC002540

UNSPSC

UNSPSC 6.01	30211502
UNSPSC 7.0901	39121004
UNSPSC 11	39121004
UNSPSC 12.01	39121004
UNSPSC 13.2	39121004

Approvals

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UL Recognized / UL Listed / cUL Recognized / cUL Listed / EAC / EAC / UL Recognized / UL Listed / cUL Recognized / cUL Listed / cULus Recognized / cULus Listed

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approvals submitted

Approval details

UL Recognized

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Approvals

UL Listed 

cUL Recognized 

cUL Listed 

EAC


EAC


UL Recognized

UL Listed

cUL Recognized

cUL Listed

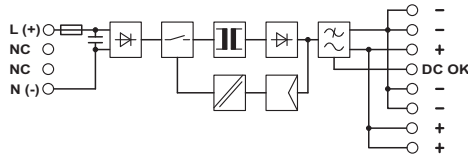
cULus Recognized 

cULus Listed 

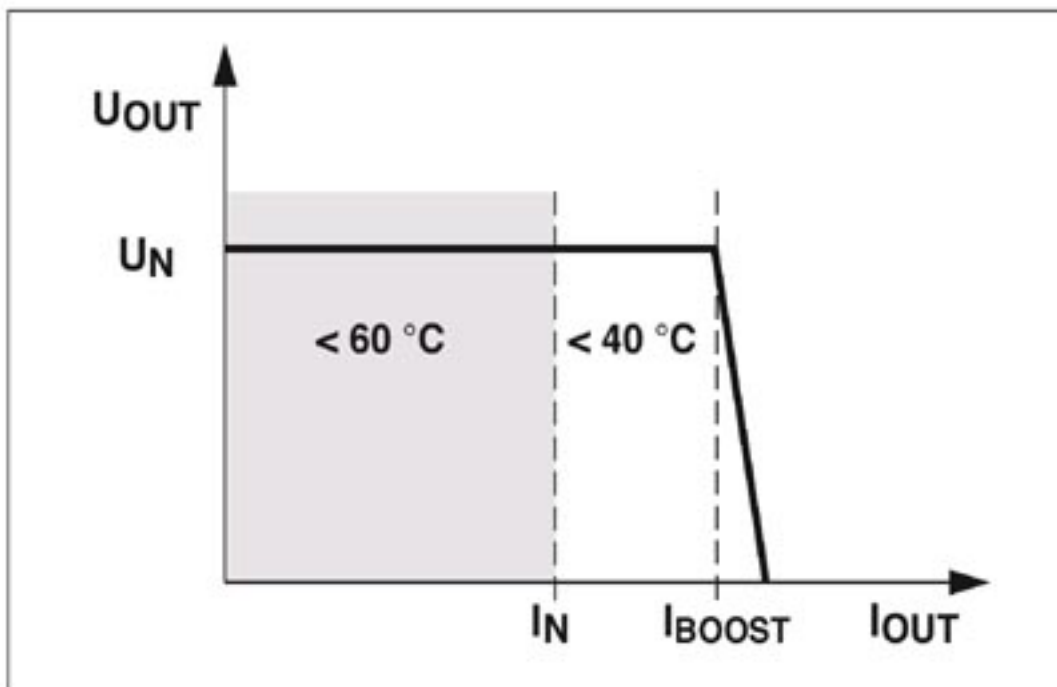
Drawings

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Block diagram



Diagram



POWER BOOST