Power supply unit - MINI-PS-100-240AC/2X15DC/1 - 2938743

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DIN rail power supply unit 2x15 V DC/1 A, primary-switched mode, narrow design

Product description

MINI POWER is the extremely slim power supply unit with constructional widths of 22.5 mm, 45 mm and 67.5 mm.
In addition to a 24 V DC version with output currents of 1 A , 2 A and 4 A ,special voltages with 5 V/3 A, ±15 V/1 A and 10 V ... 15 V/2A are also available.
Reliable startup of heavy loads is ensured by a power reserve of up to 100 % – the POWER BOOST.
The high operational reliability is thus dependably guaranteed in complex global networks as well. MINI POWER also functions in applications where static voltage dips, transient failures of the supply voltage or phase failure are to be expected.
Generously dimensioned capacitors guarantee a mains buffering time of more than 20 ms under full load.

Product Features

- Easy-maintenance connection technology thanks to keyed COMBICON connectors
- Remote monitoring of output voltage via switching output

Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	327.4 GRM
Custom tariff number	85044082
Country of origin	Germany

Technical data

Dimensions

Width	45 mm
Height	99 mm
Depth	107 mm

Ambient conditions

Degree of protection	IP20

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Ambient conditions

Ambient temperature (operation)	-25 °C ... 70 °C (> 60 °C derating)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	≤ 95 % (at 25 °C, no condensation)
Noise immunity	EN 61000-6-2:2005

Input data

Input voltage range	85 V AC ... 264 V AC
	90 V DC ... 350 V DC
AC frequency range	45 Hz ... 65 Hz
Current consumption	0.6 A (120 V AC)
	0.4 A (230 V AC)
	0.8 A (90 V DC)
	0.3 A (350 V DC)
Inrush surge current	< 35 A (typical)
Power failure bypass	> 30 ms (120 V AC)
	> 150 ms (230 V AC)
Input fuse	2.5 A (slow-blow, internal)

Output data

Nominal output voltage	± 15 V DC ±1%
Output current	2x 1 A (-25 °C ... 60 °C)
	2x 1.5 A (with POWER BOOST, -25°C ... 40°C permanent)
Derating	60 °C ... 70 °C (2.5%/K)
Connection in parallel	Yes, for assembling redundant systems and increasing efficiency
Connection in series	Yes
Current limitation	Approx 4.4 A (in the event of a short circuit)
Control deviation	< 2 % (change in load, static 10% ... 90%)
	< 3 % (change in load, dynamic 10% ... 90%)
	< 0.1 % (change in input voltage ±10%)
Residual ripple	< 30 mV_{PP} (20 MHz)
Peak switching voltages nominal load	< 20 mV_{PP} (20 MHz)
Maximum power dissipation NO-Load	2 W
Power loss nominal load max.	8 W

General

Net weight	0.25 kg
Operating voltage display	Green LED
Efficiency	> 80 % (for 230 V AC and nominal values)
Insulation voltage input/output	4 kV (type test)

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Technical data

General

	3 kV (Routine test)
Protection class	II (in closed control cabinet)
MTBF (IEC 61709, SN 29500)	> 500000 h (According to EN 29500)
Mounting position	horizontal DIN rail NS 35, EN 60715
Assembly instructions	Can be aligned: Horizontally 0 mm, vertically 50 mm
Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Noise emission	EN 50081-2
Low Voltage Directive	Conformance with LV directive 2006/95/EC
Standard – Electrical equipment of machines	EN 60204
Standard - Electrical safety	EN 60950-1/VDE 0805 (SELV)
Standard – Electronic equipment for use in electrical power installations and their assembly into electrical power installations	EN 50178/VDE 0160 (PELV)
Standard – Safety extra-low voltage	EN 60950-1 (SELV)
	EN 60204 (PELV)
Standard - Safe isolation	DIN VDE 0100-410
Standard – Protection against electric shock	DIN 57100-410
Standard – Limitation of mains harmonic currents	EN 61000-3-2
UL approvals	UL/C-UL listed UL 508
	UL/C-UL Recognized UL 60950
	UL ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D (Hazardous Location)
	NEC Class 2 as per UL 1310

Connection data, input

Connection method	Pluggable screw connection
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section stranded min.	0.2 mm²
Conductor cross section stranded max.	2.5 mm²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12
Stripping length	7 mm
Screw thread	M3

Connection data, output

Connection method	Pluggable screw connection
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section stranded min.	0.2 mm²

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Connection data, output

Conductor cross section stranded max.	2.5 mm²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12
Stripping length	7 mm

Signaling

Output name	DC OK active
Status display	"DC OK" LED green
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section stranded min.	0.2 mm²
Conductor cross section stranded max.	2.5 mm²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12
Screw thread	M3

Classifications

eCl@ss

eCl@ss 4.0	27250202
eCl@ss 4.1	27250202
eCl@ss 5.0	27143114
eCl@ss 5.1	27143114
eCl@ss 6.0	27143114
eCl@ss 7.0	27143114
eCl@ss 8.0	27143114

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

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Classifications

UNSPSC

UNSPSC 13.2	39121004

Approvals

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UL Listed / cUL Listed / UL Recognized / cUL Recognized / GOST / UL Listed / cUL Listed / cULus Recognized / cULus Listed

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approvals submitted

Approval details

UL Listed

cUL Listed

UL Recognized

cUL Recognized

GOST

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Approvals

UL Listed

cUL Listed

cULus Recognized

cULus Listed

Drawings

Block diagram