AC9251
50 WATT SERIES

The AC9251 Switch-Mode Power Supply has been designed for use in intelligent terminals and microcomputers. The AC9251 has dual line inputs and regulated outputs of:

- +5V at 6A
- +12V at 2A
- -12V at 1.0A
- -5V at 0.5A

This compact open frame unit features low magnetic radiation and is built to conform to International Safety and RFI Regulations.

PIN ASSIGNMENT:
AC Input
P1 NEUTRAL
P2 LIVE
DC Outputs
P3 -5V
P4 -12V
P5,6 +12V
P7,8,9, COMMON 10,11
P12,13,14 +5V
Crimp Inserts

MATING CONNECTORS:
EMI FILTER GROUND
P1
P14

Molex Type 09-50-3031
Molex Type 09-50-3131
Molex Type 2478
(18 to 24 AWG)

All dimensions are mm
**ELECTRICAL SPECIFICATIONS**  

**PARAMETER** | **MIN** | **TYP** | **MAX** | **UNIT** | **NOTES**
--- | --- | --- | --- | --- | ---
Input Voltage | 90 | 115 | 135 | VAC |  
| | 180 | 230 | 270 | VAC |  
Input Frequency | 47 | 50/60 | 400 | Hz |  
Outputs: | | | | |  
| VO1 | 4.95 | 5.0 | 5.05 | V | +5V Output  
| IO1 | 0.1 | 3.0 | 6.0 | A |  
| VO2 | 11.4 | 12.0 | 12.6 | V | +12V Output  
| IO2 | 0.2 | 0.5 | 1.0 | A |  
| VO3 | -11.04 | -12.0 | -12.06 | V | -12V Output  
| IO3 | 0.2 | 0.5 | 1.0 | A |  
| VO4 | -4.8 | -5.0 | -5.2 | V | -5V Output  
| IO4 | 0.1 | 0.25 | 0.5 | A |  

Note: With +12V at 2A max., +5V will reduce to 4A max.

**PARAMETER** | **MIN** | **TYP** | **MAX** | **UNIT** | **NOTES**
--- | --- | --- | --- | --- | ---
Efficiency | 65 | | | % | At full load  
Operating Temperature | 0 | 50 | | °C | Ambient temp.  
Output Ripple | | 1 | | % | 1Hz to 10MHz  
Line Regulation | 0.1 | 0.2 | | % |  
Load Regulation: | VO1 | 0.2 | 1.0 | | % |  
| VO2, VO4 | | | 3.0 | | % |  
| VO3 | | | 6.0 | | % |  
Load Step Response Time | | | 500 | | μS | For 20% step  
Over Voltage Protection | 5.9 | 6.4 | 6.9 | | V | +5V Supply  
Hold-up Time | 16 | 24 | | | mS | At full load  

MTBF

Greater than 50,000 hours when operated at full load and an ambient temperature of 25°C.

Short Circuit Loads

Indefinite period.

Open Circuit Loads

Indefinite period.

EMI Requirements

Meets the conduction limits of VDE 0871 ‘A’ rules for 230 VAC In and FCC ‘A’ rules for 115 VAC In.

Safety Requirements

Meets UL 1012 safety standard for power supplies.

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PSU
M3 Nut
M3 Shake-proof Washer
M3 x 10mm Studded Spacer
M3 Nut
M3 Shake-proof Washer
PSU Mounting Plate
M3 x 25mm Studded Spacer
Card Frame
Side Plate
Card Frame Rear Rail

PLAN VIEW

Drawn
Date
Scale
Greenbank Electronics
PS 9251 Power Supply
Mounting Details