



Customer:

Customer Model Number:

Product Part Number: PS-303-4

1. INTRODUCTION:

PS-303-4 is a triple output, 42 watts continuous, desktop switching power supply.

2. ELECTRICAL CHARACTERISTICS:

2.0. Input Characteristics:

- 2.0.1. Operating Input Voltage Range:
Range of input voltage is from 90 to 260VAC
- 2.0.2. Input frequency range:
Input frequency is between 47-63Hz.
- 2.0.3. No load input current and watts:
 - 2.0.3.1. Input AC current @230V without output load <= 200mA
 - 2.0.3.2. True RMS input power @230V without load at the output <= 4W.
- 2.0.4. Input Current:
Input AC Current @90V with rated output load <= 1.35A
- 2.0.5. Inrush current:
Inrush current will not exceed 30A at 230VAC input, cold start, 25°C.

2.1. Output Characteristics:

2.1.1. Output Range:

Output Voltage	LOAD RANGE			Load Regulation	Ripple & Noise(max)
	Min.	Typ.	Max.		
+5 VDC	0.6 A	3.58 A	5 A	± 5 %	100 mVp-p
+12 VDC	0.45 A	1.43 A	2 A	± 5 %	120 mVpp
-12 VDC	0.20 A	0.57 A	0.80 A	± 10 %	240 mVpp

- 2.1.2. Line regulation:
Line regulation is less the 1% while measuring at rated load and +/- 10% of input voltage variation.
- 2.1.3. Ripple Test condition:
 - 2.1.3.1. All voltage measured at the output connector, which should be connected with a 47uF capacitor.
 - 2.1.3.2. The ripple is measured from peak to peak with a bandwidth-limit of 20MHz and at the output terminals of the power supply with a 0.1uF ceramic disk capacitor.



- 2.1.4. No Load Regulation: +/- 10%
- 2.1.5. Continuous output power: 42W max.

- 2.2. General features:
 - 2.2.1. Efficiency:
Efficiency is at least 70% while measuring at nominal line and rated load.
 - 2.2.2. Hold-up time:
Hold-up time is longer than 10mS at nominal line (110VAC) input at rated load, which is measured from the end of the last charging pulse to the 95% drops of the main output voltage.

- 2.3. Protection:
 - 2.3.1. Over-voltage protection:
Over-voltage protection is available on output, if the output (+5V) reaches an Over-voltage condition more than 5.6~6.6V, the output shall be shut down and latched off. The output will be restored after the restart of power supply and the removal of over voltage condition.
 - 2.3.2. Short circuit protection:
With input at high line voltage (260VAC) and output terminals short circuit, there shall be no risk of fire and no live parts shall become accessible. The output shall be able to sustain a short circuit for 10 minutes without damage. The output will be shut down and latched off. The output will be restored after the restart of power supply and the resolution of short circuit problem.
 - 2.3.3. Over-load protection:
Over-load at the output will not cause damage to the adapter; the output will be shut-down and latched-off, and will be restored when the load is removed.

- 2.4. Insulation:
 - 2.4.1. Dielectric strength:
From input live and neutral to output should be 4242VDC for 2 seconds (trip current 5mA).
From input live and neutral to output should be 2121VDC for 2 seconds (trip current 5mA).
 - 2.4.2. Leakage current:
Leakage current flowing from input to output or any external accessible parts will be less than 0.75mA for any admitted value of line voltage.
 - 2.4.3. Insulation system:
Class B system.
 - 2.4.4. Circuit topology:
Fixed-frequency, Flyback circuit.



3. SAFETY AND ELECTROMAGNETIC COMPATIBILITY:

Safety requirements:

- U.L.1950,
- CUL, C.S.A C22.2 - 950
- TUV EN60950
- CE declaration of conformity.

Radiated and conducted electromagnetic interference compliance:

- FCC Part15, class B
- CISPR-22, Class B
- EN 55022, class B

Immunity requirements:

- EN50082
- EN61000
- EN65555

4. ENVIRONMENT CONDITIONS:

4.0. MTBF specified at 25°C ambient temperature and with nominal load, according to MIL-217F:100,000 Hours or above.

4.1. The adapter must be able to withstand the following environment

Operating conditions:

- Temperatures: 0°C to +70°C
- **Remark:** Derate linearly from 100% load at 40°C to 50% load at 70°C
- Relative humidity (without condensation): 10% to 95%

Storage conditions:

- Temperatures: -40°C to +85°C
- Relative humidity (without condensation): 5% to 95%

5. MECHANICAL CHARACTERISTICS:

5.0. Connections:

5.0.1. Input connector : IEC-320-C14 inlet

5.0.2. Output Connector assignment:

Pin 1, 2:	Common
Pin 3:	+5VDC
Pin 4:	-12V
Pin 5:	+12V
Shell:	Ground

Refer to product catalog for different options.

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- 5.1. Construction:
Desktop enclosure plastic case is shown under mechanical drawing.
- 5.2. Weight:
Approximately 550 grams.

Mechanical Drawing:

