

**THIS SPECIFICATION
COVERS THE REQUIREMENT
FOR A SWITCHING POWER SUPPLY WITH
WIDE RANGE LINE INPUT 90VAC - 264 VAC
CAPABILITY AND 45 WATTS
MAXIMUM OUTPUT POWER**

Specification details subject to change without notice.

1.0 MECHANICAL REQUIREMENTS

The PSM shall conform to the mechanical outline and within the tolerances stated. Overall size is 119 x 60 x 34mm. No ventilation is provided.

1.1 CONNECTIONS

Connections to the PSM are 2 connectors, a 10A 250V IEC 320 AC receptacle and DC output cable with Ø2.5mm output jack which to be mated with Ø2.5mm center pin of DC power jack (Centre is +18V, outside is common).

2.0 ELECTRICAL

Operating Characteristics
Vin = 90 to 264V as appropriate
Ta = 25 deg C
Thermal stabilization - 1 hour minimum

2.1 INPUT

Parameter	Min	Nom	Max	Units
Vin Range	90	/	264	Vrms
Vin Frequency	47	50/60	63	Hz

Inrush Current

No damage shall occur and the input fuse shall not blow.

Input Line Current

90V	/	1.0	/	Arms
264V	/	0.5	/	Arms

N.B. Waveform is assumed a perfect sinusoidal. Deviations from this goal should be minimised, and corrected for when interpreting measurement.

2.2 OUTPUT

Reverse current shall not be applied to any output at any time.
Maximum output power shall not exceed 45 Watts.

2.2.1	Parameter	O/P	Min	Nom	Max	Units
	* 18V	V1	+17.1	18.0	18.9	V
	Load Range	18V	0	/	2.5	A

* Measured at end of output cable.

2.2.2 Output Current Limit (Optional)

$V_{out} = 6.5 - 17.1V$,

$I_{out} = 2.5A \pm 5\%$

2.2.3 Output Ripple

1 Hz to 10 MHz (PAR)	+18V	/	/	180	mVp-p
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(PAR - Periodic And Random Deviations)

2.3 Input to Output Efficiency

DC conversion efficiency (Full load, $V_{in} = 115VAC$)	/	80	/	%
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2.4 Housekeeping

Hold-up time (at 45W output) 115VAC	10	/	/	ms
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2.5 Over Voltage Protection

+18V 26 V

In the case of an overvoltage condition the unit shall latch off (requiring the AC to be recycled before restarting).

2.6 Short Circuit Protection

Output short circuit (< 0.03 ohm) : No components shall be damaged.

3.0 Environmental

The PSM shall be capable of withstanding the following :

3.1 Temperature Range

Operating	0 to 40 deg°C
Storage	-10 to +70 deg°C

3.2 Humidity (non-condensing)

Operating	5% to 95% RH
Storage	5% to 100% RH

3.3 Altitude

Operating	3,000m max (22.2 inch Hg)
Storage	9,000m max (5.6 inch Hg)

3.4 Random Drop (Packed Unit)

Unless otherwise specified, all packed unit must conform to Astec QA Product Verification Procedure QA-502.

3.5 Vibration

Refer QA501.

3.6 Shock Test

Non-operating : 30G peak (half sine), 11 msec, any of the three orthogonal axis, in either direction.

Operating : 1g peak in any axis.

4.0 Electromagnetic Compatibility (EMC)

4.1 Line Transient

Comply with IEC 801-5 class 3.

4.2 EFT / BURST

Comply with IEC 801-4 class 3.

4.3 EMI

FCC Part 15, subpart J class 'B' 115VAC operation.
CISPR22 'B' 230VAC operation.

5.0 **Electrostatic Discharge (ESD)**

 Comply with IEC 801-2 class 3.

6.0 **MTBF**

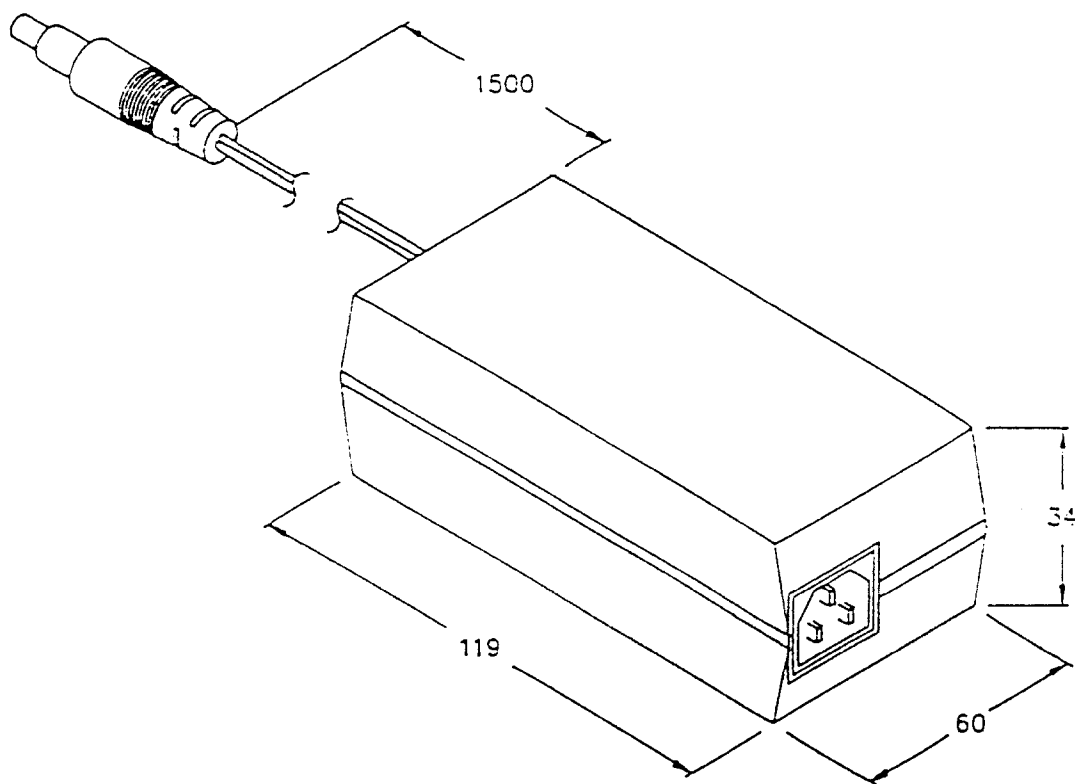
 **The mean time between failure for the PSM shall be greater than
100K hours when operated at an ambient temperature of 25 deg°C
and 100% load.**

7.0 **Safety Standard**

 **CSA 22.2 No. 234
VDE 0805
IEC 950**

SA45-3104

(Preliminary Specification Rev 0)



INPUT : A 10A 250V IEC320 AC RECEPTACLE

OUTPUT : A DC OUTPUT CABLE WITH Ø2.5mm OUTPUT PLUG
CONNECTOR