

**1.0 INTRODUCTION**

This document specifies a switching power supply with a output of +18V, and electronic process. The switching power supply will provide power for technology equipments including electrical business equipment.

**2.0 INPUT REQUIREMENTS**

- 2.1 Input Voltage Range: 100VAC(-10%) to 240VAC(+10%)
- 2.2 Input Frequency Range: 47 Hz to 63 Hz
- 2.3 Input In-rush Current: 50A Max (Actual test result is 16.8A)
- 2.4 Input Current: 0.60A Max

**3.0 OUTPUT REQUIREMENTS**

- 3.1 Output Voltage: +18V
- 3.2 Output Regulation: 17.1V~18.9V
- 3.3 Output Load Range: 0~1A
- 3.4 Output Ripple & Noise: 180mV Max @20MHz BANDWIDTH

**4.0 EFFICIENCY:** 75% @ FULL LOAD & 120 VAC INPUT

**5.0 DIELECTRIC STRENGTH (Hi-Pot) TEST**

- 5.1 Finished product withstands AC 3.0KV, for 2 second, 4mA max primary to secondary.
- 5.2 Transformer withstands AC 3.0KVrms, 60Hz for 1 minute, primary to secondary.
- 5.3 Transformer withstands AC 3.0KV, 60Hz for 1 minute, primary to core.

**6.0 INSULATION RESISTANCE**

Primary to secondary: 50MOHM to 500VDC.

**7.0 PROTECTION**

**7.1 Input Protection**

The switching power supply has a 2 amps inner current fuse to protect itself.

**7.2 Output Protection**

**7.2.1 Output Current:**

Overload conditions shall decrease the output current. Removal of an output Overload shall provide automatic recovery for the output voltage.

**7.2.2 Short Circuit Protection: Auto Recovery.**

**7.2.3 Over Voltage Protection: 20V ±1V**

**8.0 ENVIRONMENTAL CONDITIONS**

The switching power supply can withstand the following environmental conditions:

- 8.1 Storage Temperature: -20°C ~ +70 °C
- Relative Humidity: 10% ~ 95%
- 8.2 Operation Temperature: 0°C ~ 40°C
- Relative Humidity: 10% ~ 95%

**9.0 EMI / EMC**

The switching power supply has approved by the following standards:

- (1) EN55022 (EN61000-3-2, EN61000-3-3)
- (2) EN55024 (IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-6, IEC61000-4-8, IEC61000-4-11.)

**10.0 RELIABILITY AND QUALITY CONTROL**

**10.1 Burn-in**

The burn-in test will be performed at least 2 hours at 40 centigrade degrees under full load condition.

**10.2 MTBF**

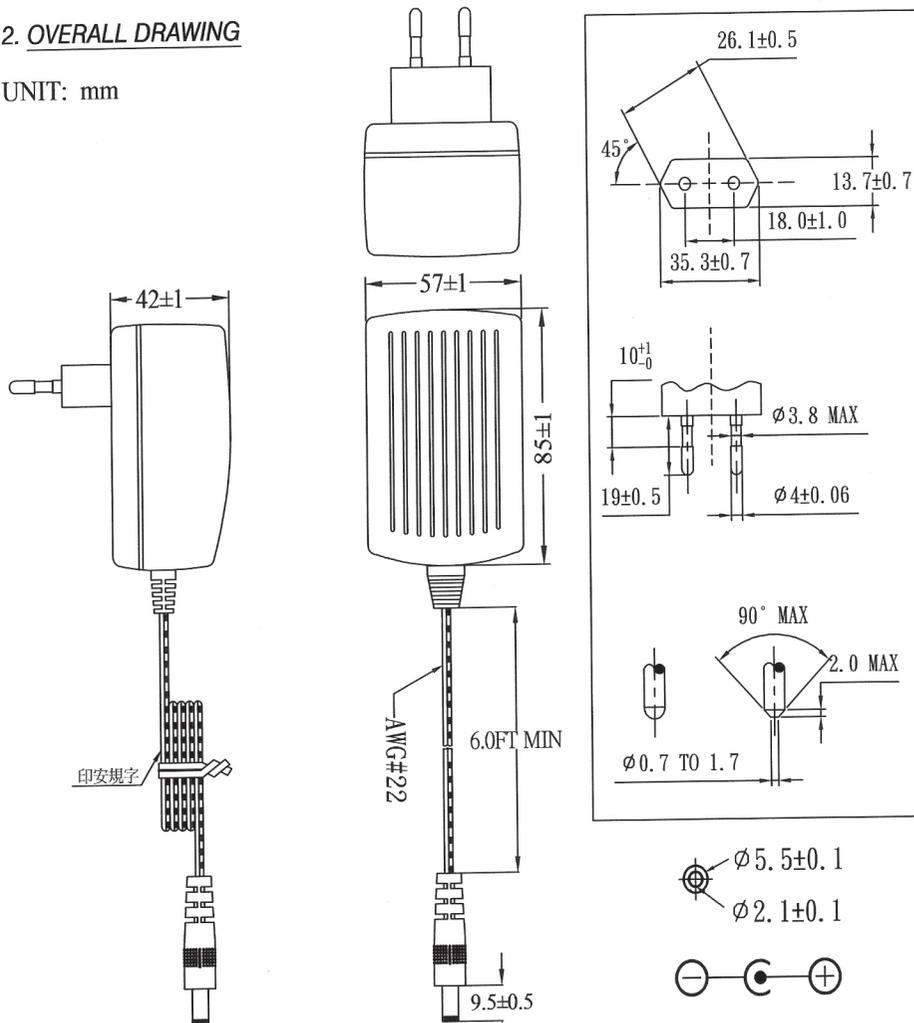
When the operation is complying with this specification, the switching power supply's MTBF will be 50,000 hours at 25 centigrade degrees.

**11.0 SAFETY**

The switching power supply has approved by the following safety standards:  
IEC60950: 1999, EN60950: 2000

**12. OVERALL DRAWING**

UNIT: mm



**DATA SHEET**

<b>Description:</b> Switching power supply 18V 1A	
<b>Part-no. SPEED:</b> --	<b>Part-no. customer:</b> --
<b>Project-no. SPEED:</b> N-IN20Ha4	<b>Project-no. customer:</b> --
<b>Data sheet-no.:</b> DBLKS1360	<b>Designed:</b> Frank Hesseler
<b>Index:</b> 0	<b>Checked:</b> <i>M. H.</i>
<b>Date:</b> 21.04.2004	<b>Page:</b> 1 of 1

