# Application Note

<table>
<thead>
<tr>
<th>PRODUCT NAME</th>
<th>POWER SUPPLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>OUR MODEL NO</td>
<td>CGSW30-120-2000II</td>
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<tr>
<td>STANDARD</td>
<td>UL60950 FCC PART.15</td>
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<tr>
<td>RATING</td>
<td>I/P: AC100-240V 0.8A 50-60HZ</td>
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<td>O/P: DC12V 2000mA</td>
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<td>REMARK</td>
<td>UL</td>
</tr>
<tr>
<td>REVISION</td>
<td>00</td>
</tr>
</tbody>
</table>
INDEX

1.0 INTRODUCTION
2.0 INPUT REQUIREMENTS
3.0 OUTPUT REQUIREMENTS
4.0 PERFORMANCE SPEC
5.0 PROTECTION FEATURE
6.0 ENVIRONMENTAL
7.0 SAFETY REQUIREMENTS AND CERTIFICATION
   7.1 Regulatory Standard
   7.2 Dielectric withstand (Hi-pot) test
   7.3 Insulation
8.0 APPEARANCE DRAWING
1.0 INTRODUCTION

This specification defines the performance characteristics for a class 2 adapter, single-phase watt. Single output level power supply

◆ Very low standby power achieved
◆ Over load Latch-Off protection during either (a) specified power threshold requirements or (b) Short circuit condition
◆ Reliability level or 50000 hours MTBF & 0.5% annual field failure rate @ 25°C

2.0 INPUT REQUIREMENTS

◆ AC Input voltage rating
  100Vac to 240Vac
◆ AC Input voltage range
  90Vac to 254Vac
◆ AC Input frequency range
  47Hz to 63Hz
◆ Max. In-rush current
  30A for 100Vac at full load
  75A for 240Vac at full load
◆ Input current
  0.8A Max @ 90V/60Hz full load
◆ Standby power
  0.5W Max @ 254V/50Hz no load
3.0 OUTPUT REQUIREMENTS

◆ Output voltage +12V
◆ Output voltage tolerance +/-0.6V
◆ Min load current 0 mA
◆ Max load current 2000 mA
◆ Line regulation +/-1%
◆ Load regulation +/-5%
◆ Ripple & Noise 120mVp-p (max)

DC-20MHz/Ripple and Noise is measured on output connector with 20MHz oscilloscope bandwidth differentially with a 10uF electrolytic and 0.1uF ceramic capacitors across output.

4.0 PERFORMANCE SPEC

◆ Total output power 24W typical
◆ Efficiency 75% min@100~240Vac50/60Hz with full load
◆ Hold up time 10m sec.min.@ 100Vac/60Hz with full load
◆ Turn on delay time 3sec.max.@ 100Vac/60Hz with full load
◆ Switching frequency 65K Hz typical
5.0 PROTECTION FEATURE

◆ Over-voltage protection Output shut down when output voltage exceeds
◆ Over-current protection Output shut down (Auto restart) when output voltage exceeds
◆ Short circuit protection Output shut down (Auto restart)
◆ Over-temperature protection Output shut down when case face temperature exceeds 65°C

6.0 ENVIRONMENTAL

◆ Operation temperature -20°C to +40°C
◆ Operation humidity 20% to 90% R.H.
◆ Storage temperature -20°C to +75°C
◆ Storage humidity 0% to 90% R.H.

7.0 SAFETY REQUIREMENTS AND CERTIFICATION

7.1 Regulatory Standard

◆ The power supply shall complied the following international regulatory standards

7.2 Dielectric withstand (Hi-pot) test

◆ Input to output 3000Vac 10mA /min

7.3 Insulation

◆ Input to output DC 500V 10M ohm min
8.0 APPEARANCE DRAWING

Model: CGSW30-120-2000II

22# Black wire Length = 1 SW.