

CEC TEST REPORT For
S0811464
Fuyuan Electronic Co., Ltd.

SWITCHING POWER SUPPLY
Model No.: FY1201500, FY1201000

Prepared for : Fuyuan Electronic Co., Ltd.
Address : Xiewu village, Hengshan, Shipai town, Dongguan,
Guangdong, China
Prepared by : Usai Technology Services Co., Ltd.
Address : 3rd Floor, Tiandi Industrial Building, North ChaGuang Rd,
XiLi Town, NanShan, ShenZhen, 518055, China
Tel : +86-755-2673 4311(5 lines);
Fax : +86-755-2673 4059
E-mail : szusai@21cn.net

Report No. : S0811464
Date of Test : 2008-11-04
Date of Report : 2008-11-05

Test Report Declaration

Applicant	:	Fuyuan Electronic Co., Ltd.
Address	:	Xiewu village, Hengshan, Shipai town, Dongguan, Guangdong, China
Manufacturer	:	Fuyuan Electronic Co., Ltd.
Address	:	Xiewu village, Hengshan, Shipai town, Dongguan, Guangdong, China
Product	:	SWITCHING POWER SUPPLY
Model No	:	FY1201500, FY1201000
Rating	:	Input: 100-240VAC, 50/60Hz 50WA Output: See report

This report shows that the EUT (Equipment Under Test) is technically compliant with the CEC-400-2006-002 and US-EPATM-08-11-2004 requirements.

Prepared by :

(Ethan Chan/Project Engineer)

Reviewer :

(Wetow Huang/Tech. Manager)

**Usai Technology Services Co., Ltd.
Tier 1 External Power Supply Efficiency**

Manufacturer: Fuyuan Electronic Co.,Ltd.
SKU Number: N.A **Cord Length (cm):** 180
Product Description: SWITCHING POWER SUPPLY, MODEL: FY1201500

Enter Applicable Nameplate Information

Rated AC Input Voltage	100-240	VAC
Rated Input Power	50	W
Rated AC Input Current	N.A	A
Rated Input Volt-Amperes	50	VA
Rated Input AC Frequency	50/60	Hz
Rated Output Voltage	12	V
Rated Output Current	1500	mA
Efficiency Level Mark	IV	
Energy Star Qualified?	N.A	
Manufactured Date	N.A	

Comments: _____

Tier 1 Standards

Minimum Average Efficiency in Active Mode:	
< 1 Watt	0.5 * Nameplate Output
≥ 1 to ≤ 51 Watts	0.09 * Ln (Nameplate Output) + 0.5
> 51 Watts	0.85
Maximum Energy Consumption in No Load Mode:	
0 to ≤ 250 Watts	0.5 W
Test Method: EPA Test Method for Calculating the Energy Efficiency of Single-Voltage External Ac-Dc and Ac-Ac Power Supplies - August 11, 2004	
CEC Effective Date: Manufactured On or After 1/1/2008	

Tier 1 Standards for This Power Supply

Rated Output Power (Voltage x Current):	18.00 W
Maximum Energy Consumption - No Load:	0.5 W
Minimum Average Efficiency in Active Mode:	0.760 76.0%

115 VAC / 60 Hz External Power Supply Results Summary				
	Sample #1	Sample #2	Sample #3	Average
100% Load Efficiency	81.15%	81.19%	81.15%	81.2%
75% Load Efficiency	82.13%	82.13%	82.13%	82.1%
50% Load Efficiency		81.30%	81.23%	81.3%
25% Load Efficiency	40.92%	79.61%	79.75%	66.8%
Average Active Mode Efficiency		81.1%	81.1%	81.1%
No Load Input Power (W)	0.44	0.44	0.44	0.44

Enter Nameplate Information and Sample #1, #2, #3 Data

Test Lab: Usai Technology Services Co., Ltd. Date: 2008-11-4
 Technician: Ethan.Chen

Sample #1 Test Results - 115 VAC / 60 Hz

Output Measurements

AC Input Measurements

Load Condition #1: 100%			
Set Output Current to	1500 mA	Measured Input Power	21.83 W
Min Output Current	1470 mA	Measured Input Voltage	115 VAC
Max Output Current	1530 mA	Measured Frequency	60 Hz
		True Power Factor	0.616
Measured Output Current	1500 mA	Total Harmonic Distortion (THD)	%
Measured Output Voltage	11.81 V	Calculated Power Consumed	4.12 W
Calculated Output Power	17.72 W	Calculated Efficiency (Ouput/Input)	81.15%

Load Condition #2: 75%			
Set Output Current to	1125 mA	Measured Input Power	16.30 W
Min Output Current	1095 mA	Measured Input Voltage	115 VAC
Max Output Current	1155 mA	Measured Frequency	60 Hz
		True Power Factor	0.607
Measured Output Current	1125 mA	Total Harmonic Distortion (THD)	%
Measured Output Voltage	11.90 V	Calculated Power Consumed	2.91 W
Calculated Output Power	13.39 W	Calculated Efficiency (Ouput/Input)	82.13%

Load Condition #3: 50%			
Set Output Current to	750 mA	Measured Input Power	W
Min Output Current	720 mA	Measured Input Voltage	115 VAC
Max Output Current	780 mA	Measured Frequency	60 Hz
		True Power Factor	0.599
Measured Output Current	750 mA	Total Harmonic Distortion (THD)	%
Measured Output Voltage	11.99 V	Calculated Power Consumed	W
Calculated Output Power	8.99 W	Calculated Efficiency (Ouput/Input)	%

Enter Output and Input Measurements

Load Condition #4: 25%			
Set Output Current to	375 mA	Measured Input Power	11.07 W
Min Output Current	345 mA	Measured Input Voltage	115 VAC
Max Output Current	405 mA	Measured Frequency	60 Hz
		True Power Factor	0.589
Measured Output Current	375 mA	Total Harmonic Distortion (THD)	%
Measured Output Voltage	12.08 V	Calculated Power Consumed	6.54 W
Calculated Output Power	4.53 W	Calculated Efficiency (Ouput/Input)	40.92%

Average Active Mode Efficiency:

Load condition #5: No Load	AC Input Measurements
Set the Output to No Load	Measured Input Power
	Measured Input Voltage
	Measured Frequency
	True Power Factor
	Total Harmonic Distortion (THD)

Sample #1 Meets The Tier 1 No Load Standard

Sample #2 Test Results - 115 VAC / 60 Hz

Output Measurements

AC Input Measurements

Load Condition #1: 100%			
Set Output Current to	1500 mA	Measured Input Power	21.82 W
Min Output Current	1470 mA	Measured Input Voltage	115 VAC
Max Output Current	1530 mA	Measured Frequency	60 Hz
Measured Output Current	1500 mA	True Power Factor	0.617
Measured Output Voltage	11.81 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	17.72 W	Calculated Power Consumed	4.11 W
		Calculated Efficiency (Output/Input)	81.19%
Load Condition #2: 75%			
Set Output Current to	1125 mA	Measured Input Power	16.30 W
Min Output Current	1095 mA	Measured Input Voltage	115 VAC
Max Output Current	1155 mA	Measured Frequency	60 Hz
Measured Output Current	1125 mA	True Power Factor	0.608
Measured Output Voltage	11.90 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	13.39 W	Calculated Power Consumed	2.91 W
		Calculated Efficiency (Output/Input)	82.13%
Load Condition #3: 50%			
Set Output Current to	750 mA	Measured Input Power	11.07 W
Min Output Current	720 mA	Measured Input Voltage	115 VAC
Max Output Current	780 mA	Measured Frequency	60 Hz
Measured Output Current	750 mA	True Power Factor	0.600
Measured Output Voltage	12.00 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	9.00 W	Calculated Power Consumed	2.07 W
		Calculated Efficiency (Output/Input)	81.30%
Load Condition #4: 25%			
Set Output Current to	375 mA	Measured Input Power	5.70 W
Min Output Current	345 mA	Measured Input Voltage	115 VAC
Max Output Current	405 mA	Measured Frequency	60 Hz
Measured Output Current	375 mA	True Power Factor	0.588
Measured Output Voltage	12.10 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	4.54 W	Calculated Power Consumed	1.16 W
		Calculated Efficiency (Output/Input)	79.61%
Average Active Mode Efficiency:		81.1%	
Sample #2 Meets The Tier 1 Active Efficiency Standard			

Load condition #5: No Load		AC Input Measurements	
Set the Output to No Load		Measured Input Power	0.44 W
		Measured Input Voltage	115 VAC
		Measured Frequency	60 Hz
		True Power Factor	0.149
		Total Harmonic Distortion (THD)	%
Sample #2 Meets The Tier 1 No Load Standard			

Sample #3 Test Results - 115 VAC / 60 Hz

Output Measurements

AC Input Measurements

Load Condition #1: 100%			
Set Output Current to	1500 mA	Measured Input Power	21.83 W
Min Output Current	1470 mA	Measured Input Voltage	115 VAC
Max Output Current	1530 mA	Measured Frequency	60 Hz
Measured Output Current	1500 mA	True Power Factor	0.616
Measured Output Voltage	11.81 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	17.72 W	Calculated Power Consumed	4.12 W
		Calculated Efficiency (Output/Input)	81.15%
Load Condition #2: 75%			
Set Output Current to	1125 mA	Measured Input Power	16.30 W
Min Output Current	1095 mA	Measured Input Voltage	115 VAC
Max Output Current	1155 mA	Measured Frequency	60 Hz
Measured Output Current	1125 mA	True Power Factor	0.607
Measured Output Voltage	11.90 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	13.39 W	Calculated Power Consumed	2.91 W
		Calculated Efficiency (Output/Input)	82.13%
Load Condition #3: 50%			
Set Output Current to	750 mA	Measured Input Power	11.07 W
Min Output Current	720 mA	Measured Input Voltage	115 VAC
Max Output Current	780 mA	Measured Frequency	60 Hz
Measured Output Current	750 mA	True Power Factor	0.598
Measured Output Voltage	11.99 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	8.99 W	Calculated Power Consumed	2.08 W
		Calculated Efficiency (Output/Input)	81.23%
Load Condition #4: 25%			
Set Output Current to	375 mA	Measured Input Power	5.68 W
Min Output Current	345 mA	Measured Input Voltage	115 VAC
Max Output Current	405 mA	Measured Frequency	60 Hz
Measured Output Current	375 mA	True Power Factor	0.588
Measured Output Voltage	12.08 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	4.53 W	Calculated Power Consumed	1.15 W
		Calculated Efficiency (Output/Input)	79.75%
Average Active Mode Efficiency:		81.1%	
Sample #3 Meets The Tier 1 Active Efficiency Standard			

Load condition #5: No Load		AC Input Measurements	
Set the Output to No Load		Measured Input Power	0.44 W
		Measured Input Voltage	115 VAC
		Measured Frequency	60 Hz
		True Power Factor	0.148
		Total Harmonic Distortion (THD)	%
Sample #3 Meets The Tier 1 No Load Standard			

Usai Technology Services Co., Ltd.
Tier 1 External Power Supply Efficiency

Manufacturer: Fuyuan Electronic Co.,Ltd.
SKU Number: N.A **Cord Length (cm):** 180
Product Description: SWITCHING POWER SUPPLY, MODEL: FY1201500

Enter Applicable Nameplate Information

Rated AC Input Voltage	100-240	VAC
Rated Input Power	50	W
Rated AC Input Current	N.A	A
Rated Input Volt-Amperes	50	VA
Rated Input AC Frequency	50/60	Hz
Rated Output Voltage	12	V
Rated Output Current	1500	mA
Efficiency Level Mark	IV	
Energy Star Qualified?	N.A	
Manufactured Date	N.A	

Comments: _____

Tier 1 Standards

Minimum Average Efficiency in Active Mode:	
< 1 Watt	0.5 * Nameplate Output
≥ 1 to ≤ 51 Watts	0.09 * Ln (Nameplate Output) + 0.5
> 51 Watts	0.85
Maximum Energy Consumption in No Load Mode:	
0 to ≤ 250 Watts	0.5 W
Test Method: EPA Test Method for Calculating the Energy Efficiency of Single-Voltage External Ac-Dc and Ac-Ac Power Supplies - August 11, 2004	
CEC Effective Date: Manufactured On or After 1/1/2008	

Tier 1 Standards for This Power Supply

Rated Output Power (Voltage x Current):	18.00 W
Maximum Energy Consumption - No Load:	0.5 W
Minimum Average Efficiency in Active Mode:	0.760 76.0%

230 VAC / 50 Hz External Power Supply Results Summary				
	Sample #1	Sample #2	Sample #3	Average
100% Load Efficiency	81.14%	81.18%	81.20%	81.2%
75% Load Efficiency	82.66%	82.56%	82.45%	82.6%
50% Load Efficiency	81.89%	81.97%	81.74%	81.9%
25% Load Efficiency	76.78%	76.65%	76.72%	76.7%
Average Active Mode Efficiency	80.6%	80.6%	80.5%	80.6%
No Load Input Power (W)	0.44	0.44	0.44	0.44

This Power Supply Meets Tier 1 Efficiency Standards At 115VAC / 60Hz

Test Lab: Usai Technology Services Co., Ltd. Date: 2008-11-4
 Technician: Ethan.Chen

Sample #1 Test Results - 230 VAC / 50 Hz

Output Measurements

AC Input Measurements

Load Condition #1: 100%			
Set Output Current to	1500 mA	Measured Input Power	21.87 W
Min Output Current	1470 mA	Measured Input Voltage	230 VAC
Max Output Current	1530 mA	Measured Frequency	50 Hz
Measured Output Current	1500 mA	True Power Factor	0.529
Measured Output Voltage	11.83 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	17.75 W	Calculated Power Consumed	4.13 W
		Calculated Efficiency (Output/Input)	81.14%
Load Condition #2: 75%			
Set Output Current to	1125 mA	Measured Input Power	16.21 W
Min Output Current	1095 mA	Measured Input Voltage	230 VAC
Max Output Current	1155 mA	Measured Frequency	50 Hz
Measured Output Current	1125 mA	True Power Factor	0.528
Measured Output Voltage	11.91 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	13.40 W	Calculated Power Consumed	2.81 W
		Calculated Efficiency (Output/Input)	82.66%
Load Condition #3: 50%			
Set Output Current to	750 mA	Measured Input Power	10.99 W
Min Output Current	720 mA	Measured Input Voltage	230 VAC
Max Output Current	780 mA	Measured Frequency	50 Hz
Measured Output Current	750 mA	True Power Factor	0.519
Measured Output Voltage	12.00 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	9.00 W	Calculated Power Consumed	1.99 W
		Calculated Efficiency (Output/Input)	81.89%
Load Condition #4: 25%			
Set Output Current to	375 mA	Measured Input Power	5.90 W
Min Output Current	345 mA	Measured Input Voltage	230 VAC
Max Output Current	405 mA	Measured Frequency	50 Hz
Measured Output Current	375 mA	True Power Factor	0.449
Measured Output Voltage	12.08 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	4.53 W	Calculated Power Consumed	1.37 W
		Calculated Efficiency (Output/Input)	76.78%
Average Active Mode Efficiency:			80.6%
Sample #1 Meets The Tier 1 Active Efficiency Standard			

Load condition #5: No Load		AC Input Measurements	
Set the Output to No Load		Measured Input Power	0.44 W
		Measured Input Voltage	230 VAC
		Measured Frequency	50 Hz
		True Power Factor	0.098
		Total Harmonic Distortion (THD)	%
Sample #1 Meets The Tier 1 No Load Standard			

Sample #2 Test Results - 230 VAC / 50 Hz

Output Measurements

AC Input Measurements

Load Condition #1: 100%			
Set Output Current to	1500 mA	Measured Input Power	21.86 W
Min Output Current	1470 mA	Measured Input Voltage	230 VAC
Max Output Current	1530 mA	Measured Frequency	50 Hz
Measured Output Current	1500 mA	True Power Factor	0.530
Measured Output Voltage	11.83 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	17.75 W	Calculated Power Consumed	4.12 W
		Calculated Efficiency (Output/Input)	81.18%
Load Condition #2: 75%			
Set Output Current to	1125 mA	Measured Input Power	16.23 W
Min Output Current	1095 mA	Measured Input Voltage	230 VAC
Max Output Current	1155 mA	Measured Frequency	50 Hz
Measured Output Current	1125 mA	True Power Factor	0.528
Measured Output Voltage	11.91 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	13.40 W	Calculated Power Consumed	2.83 W
		Calculated Efficiency (Output/Input)	82.56%
Load Condition #3: 50%			
Set Output Current to	750 mA	Measured Input Power	10.98 W
Min Output Current	720 mA	Measured Input Voltage	230 VAC
Max Output Current	780 mA	Measured Frequency	50 Hz
Measured Output Current	750 mA	True Power Factor	0.517
Measured Output Voltage	12.00 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	9.00 W	Calculated Power Consumed	1.98 W
		Calculated Efficiency (Output/Input)	81.97%
Load Condition #4: 25%			
Set Output Current to	375 mA	Measured Input Power	5.91 W
Min Output Current	345 mA	Measured Input Voltage	230 VAC
Max Output Current	405 mA	Measured Frequency	50 Hz
Measured Output Current	375 mA	True Power Factor	0.445
Measured Output Voltage	12.08 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	4.53 W	Calculated Power Consumed	1.38 W
		Calculated Efficiency (Output/Input)	76.65%
Average Active Mode Efficiency:		80.6%	
Sample #2 Meets The Tier 1 Active Efficiency Standard			

Load condition #5: No Load		AC Input Measurements	
Set the Output to No Load		Measured Input Power	0.44 W
		Measured Input Voltage	230 VAC
		Measured Frequency	50 Hz
		True Power Factor	0.099
		Total Harmonic Distortion (THD)	%
Sample #2 Meets The Tier 1 No Load Standard			

Sample #3 Test Results - 230 VAC / 50 Hz

Output Measurements

AC Input Measurements

Load Condition #1: 100%			
Set Output Current to	1500 mA	Measured Input Power	21.89 W
Min Output Current	1470 mA	Measured Input Voltage	230 VAC
Max Output Current	1530 mA	Measured Frequency	50 Hz
Measured Output Current	1500 mA	True Power Factor	0.531
Measured Output Voltage	11.85 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	17.78 W	Calculated Power Consumed	4.12 W
		Calculated Efficiency (Output/Input)	81.20%
Load Condition #2: 75%			
Set Output Current to	1125 mA	Measured Input Power	16.25 W
Min Output Current	1095 mA	Measured Input Voltage	230 VAC
Max Output Current	1155 mA	Measured Frequency	50 Hz
Measured Output Current	1125 mA	True Power Factor	0.528
Measured Output Voltage	11.91 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	13.40 W	Calculated Power Consumed	2.85 W
		Calculated Efficiency (Output/Input)	82.45%
Load Condition #3: 50%			
Set Output Current to	750 mA	Measured Input Power	11.01 W
Min Output Current	720 mA	Measured Input Voltage	230 VAC
Max Output Current	780 mA	Measured Frequency	50 Hz
Measured Output Current	750 mA	True Power Factor	0.520
Measured Output Voltage	12.00 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	9.00 W	Calculated Power Consumed	2.01 W
		Calculated Efficiency (Output/Input)	81.74%
Load Condition #4: 25%			
Set Output Current to	375 mA	Measured Input Power	5.9 W
Min Output Current	345 mA	Measured Input Voltage	230 VAC
Max Output Current	405 mA	Measured Frequency	50 Hz
Measured Output Current	375 mA	True Power Factor	0.448
Measured Output Voltage	12.07 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	4.53 W	Calculated Power Consumed	1.37 W
		Calculated Efficiency (Output/Input)	76.72%
Average Active Mode Efficiency:		80.5%	
Sample #3 Meets The Tier 1 Active Efficiency Standard			

Load condition #5: No Load		AC Input Measurements	
Set the Output to No Load		Measured Input Power	0.44 W
		Measured Input Voltage	230 VAC
		Measured Frequency	50 Hz
		True Power Factor	0.100
		Total Harmonic Distortion (THD)	%
Sample #3 Meets The Tier 1 No Load Standard			

**Usai Technology Services Co., Ltd.
Tier 1 External Power Supply Efficiency**

Manufacturer: Fuyuan Electronic Co.,Ltd.
SKU Number: N.A **Cord Length (cm):** 180
Product Description: SWITCHING POWER SUPPLY, MODEL: FY1201000

Enter Applicable Nameplate Information

Rated AC Input Voltage	100-240	VAC
Rated Input Power	50	W
Rated AC Input Current	N.A	A
Rated Input Volt-Amperes	50	VA
Rated Input AC Frequency	50/60	Hz
Rated Output Voltage	12	V
Rated Output Current	1000	mA
Efficiency Level Mark	IV	
Energy Star Qualified?	N.A	
Manufactured Date	N.A	

Comments: _____

Tier 1 Standards

Minimum Average Efficiency in Active Mode:	
< 1 Watt	0.5 * Nameplate Output
≥ 1 to ≤ 51 Watts	0.09 * Ln (Nameplate Output) + 0.5
> 51 Watts	0.85
Maximum Energy Consumption in No Load Mode:	
0 to ≤ 250 Watts	0.5 W
Test Method: EPA Test Method for Calculating the Energy Efficiency of Single-Voltage External Ac-Dc and Ac-Ac Power Supplies - August 11, 2004	
CEC Effective Date: Manufactured On or After 1/1/2008	

Tier 1 Standards for This Power Supply

Rated Output Power (Voltage x Current):	12.00 W
Maximum Energy Consumption - No Load:	0.5 W
Minimum Average Efficiency in Active Mode:	0.724 72.4%

115 VAC / 60 Hz External Power Supply Results Summary				
	Sample #1	Sample #2	Sample #3	Average
100% Load Efficiency	80.74%	80.85%	80.74%	80.8%
75% Load Efficiency	78.87%	79.01%	79.08%	79.0%
50% Load Efficiency	77.83%	77.83%	77.83%	77.8%
25% Load Efficiency	73.55%	73.37%	73.55%	73.5%
Average Active Mode Efficiency	77.7%	77.8%	77.8%	77.8%
No Load Input Power (W)	0.42	0.42	0.42	0.42

This Power Supply Meets Tier 1 Efficiency Standards At 115VAC / 60Hz

Test Lab: Usai Technology Services Co., Ltd. Date: 2008-11-4
 Technician: Ethan.Chen

Sample #1 Test Results - 115 VAC / 60 Hz

Output Measurements	AC Input Measurements
Load Condition #1: 100%	
Set Output Current to 1000 mA Min Output Current 980 mA Max Output Current 1020 mA Measured Output Current 1000 mA Measured Output Voltage 11.95 V Calculated Output Power 11.95 W	Measured Input Power 14.80 W Measured Input Voltage 115 VAC Measured Frequency 60 Hz True Power Factor 0.624 Total Harmonic Distortion (THD) % Calculated Power Consumed 2.85 W Calculated Efficiency (Ouput/Input) 80.74%
Load Condition #2: 75%	
Set Output Current to 750 mA Min Output Current 730 mA Max Output Current 770 mA Measured Output Current 750 mA Measured Output Voltage 12.02 V Calculated Output Power 9.02 W	Measured Input Power 11.43 W Measured Input Voltage 115 VAC Measured Frequency 60 Hz True Power Factor 0.607 Total Harmonic Distortion (THD) % Calculated Power Consumed 2.42 W Calculated Efficiency (Ouput/Input) 78.87%
Load Condition #3: 50%	
Set Output Current to 500 mA Min Output Current 480 mA Max Output Current 520 mA Measured Output Current 500 mA Measured Output Voltage 12.11 V Calculated Output Power 6.06 W	Measured Input Power 7.78 W Measured Input Voltage 115 VAC Measured Frequency 60 Hz True Power Factor 0.606 Total Harmonic Distortion (THD) % Calculated Power Consumed 1.73 W Calculated Efficiency (Ouput/Input) 77.83%
Load Condition #4: 25%	
Set Output Current to 250 mA Min Output Current 230 mA Max Output Current 270 mA Measured Output Current 250 mA Measured Output Voltage 12.18 V Calculated Output Power 3.05 W	Measured Input Power 4.14 W Measured Input Voltage 115 VAC Measured Frequency 60 Hz True Power Factor 0.541 Total Harmonic Distortion (THD) % Calculated Power Consumed 1.10 W Calculated Efficiency (Ouput/Input) 73.55%
Average Active Mode Efficiency: 77.7%	
Sample #1 Meets The Tier 1 Active Efficiency Standard	

Load condition #5: No Load Set the Output to No Load	AC Input Measurements Measured Input Power 0.42 W Measured Input Voltage 115 VAC Measured Frequency 60 Hz True Power Factor 0.146 Total Harmonic Distortion (THD) %
Sample #1 Meets The Tier 1 No Load Standard	

Sample #2 Test Results - 115 VAC / 60 Hz

Output Measurements

AC Input Measurements

Load Condition #1: 100%			
Set Output Current to	1000 mA	Measured Input Power	14.78 W
Min Output Current	980 mA	Measured Input Voltage	115 VAC
Max Output Current	1020 mA	Measured Frequency	60 Hz
Measured Output Current	1000 mA	True Power Factor	0.626
Measured Output Voltage	11.95 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	11.95 W	Calculated Power Consumed	2.83 W
		Calculated Efficiency (Output/Input)	80.85%
Load Condition #2: 75%			
Set Output Current to	750 mA	Measured Input Power	11.42 W
Min Output Current	730 mA	Measured Input Voltage	115 VAC
Max Output Current	770 mA	Measured Frequency	60 Hz
Measured Output Current	750 mA	True Power Factor	0.608
Measured Output Voltage	12.03 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	9.02 W	Calculated Power Consumed	2.40 W
		Calculated Efficiency (Output/Input)	79.01%
Load Condition #3: 50%			
Set Output Current to	500 mA	Measured Input Power	7.78 W
Min Output Current	480 mA	Measured Input Voltage	115 VAC
Max Output Current	520 mA	Measured Frequency	60 Hz
Measured Output Current	500 mA	True Power Factor	0.605
Measured Output Voltage	12.11 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	6.06 W	Calculated Power Consumed	1.73 W
		Calculated Efficiency (Output/Input)	77.83%
Load Condition #4: 25%			
Set Output Current to	250 mA	Measured Input Power	4.15 W
Min Output Current	230 mA	Measured Input Voltage	115 VAC
Max Output Current	270 mA	Measured Frequency	60 Hz
Measured Output Current	250 mA	True Power Factor	0.536
Measured Output Voltage	12.18 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	3.05 W	Calculated Power Consumed	1.11 W
		Calculated Efficiency (Output/Input)	73.37%
Average Active Mode Efficiency:		77.8%	
Sample #2 Meets The Tier 1 Active Efficiency Standard			

Load condition #5: No Load		AC Input Measurements	
Set the Output to No Load		Measured Input Power	0.42 W
		Measured Input Voltage	115 VAC
		Measured Frequency	60 Hz
		True Power Factor	0.147
		Total Harmonic Distortion (THD)	%
Sample #2 Meets The Tier 1 No Load Standard			

Sample #3 Test Results - 115 VAC / 60 Hz

Output Measurements

AC Input Measurements

Load Condition #1: 100%			
Set Output Current to	1000 mA	Measured Input Power	14.80 W
Min Output Current	980 mA	Measured Input Voltage	115 VAC
Max Output Current	1020 mA	Measured Frequency	60 Hz
Measured Output Current	1000 mA	True Power Factor	0.624
Measured Output Voltage	11.95 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	11.95 W	Calculated Power Consumed	2.85 W
		Calculated Efficiency (Output/Input)	80.74%
Load Condition #2: 75%			
Set Output Current to	750 mA	Measured Input Power	11.40 W
Min Output Current	730 mA	Measured Input Voltage	115 VAC
Max Output Current	770 mA	Measured Frequency	60 Hz
Measured Output Current	750 mA	True Power Factor	0.611
Measured Output Voltage	12.02 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	9.02 W	Calculated Power Consumed	2.39 W
		Calculated Efficiency (Output/Input)	79.08%
Load Condition #3: 50%			
Set Output Current to	500 mA	Measured Input Power	7.78 W
Min Output Current	480 mA	Measured Input Voltage	115 VAC
Max Output Current	520 mA	Measured Frequency	60 Hz
Measured Output Current	500 mA	True Power Factor	0.606
Measured Output Voltage	12.11 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	6.06 W	Calculated Power Consumed	1.73 W
		Calculated Efficiency (Output/Input)	77.83%
Load Condition #4: 25%			
Set Output Current to	250 mA	Measured Input Power	4.14 W
Min Output Current	230 mA	Measured Input Voltage	115 VAC
Max Output Current	270 mA	Measured Frequency	60 Hz
Measured Output Current	250 mA	True Power Factor	0.542
Measured Output Voltage	12.18 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	3.05 W	Calculated Power Consumed	1.10 W
		Calculated Efficiency (Output/Input)	73.55%
Average Active Mode Efficiency:		77.8%	
Sample #3 Meets The Tier 1 Active Efficiency Standard			

Load condition #5: No Load		AC Input Measurements	
Set the Output to No Load		Measured Input Power	0.42 W
		Measured Input Voltage	115 VAC
		Measured Frequency	60 Hz
		True Power Factor	0.145
		Total Harmonic Distortion (THD)	%
Sample #3 Meets The Tier 1 No Load Standard			

**Usai Technology Services Co., Ltd.
Tier 1 External Power Supply Efficiency**

Manufacturer: Fuyuan Electronic Co.,Ltd.
SKU Number: N.A **Cord Length (cm):** 180
Product Description: SWITCHING POWER SUPPLY, MODEL: FY1201000

Enter Applicable Nameplate Information

Rated AC Input Voltage	100-240	VAC
Rated Input Power	50	W
Rated AC Input Current	N.A	A
Rated Input Volt-Amperes	50	VA
Rated Input AC Frequency	50/60	Hz
Rated Output Voltage	12	V
Rated Output Current	1000	mA
Efficiency Level Mark	IV	
Energy Star Qualified?	N.A	
Manufactured Date	N.A	

Comments: _____

Tier 1 Standards

Minimum Average Efficiency in Active Mode:	
< 1 Watt	0.5 * Nameplate Output
≥ 1 to ≤ 51 Watts	0.09 * Ln (Nameplate Output) + 0.5
> 51 Watts	0.85
Maximum Energy Consumption in No Load Mode:	
0 to ≤ 250 Watts	0.5 W
Test Method: EPA Test Method for Calculating the Energy Efficiency of Single-Voltage External Ac-Dc and Ac-Ac Power Supplies - August 11, 2004	
CEC Effective Date: Manufactured On or After 1/1/2008	

Tier 1 Standards for This Power Supply

Rated Output Power (Voltage x Current):	12.00 W
Maximum Energy Consumption - No Load:	0.5 W
Minimum Average Efficiency in Active Mode:	0.724 72.4%

230 VAC / 50 Hz External Power Supply Results Summary				
	Sample #1	Sample #2	Sample #3	Average
100% Load Efficiency	79.48%	79.48%	79.48%	79.5%
75% Load Efficiency	79.29%	79.29%	79.29%	79.3%
50% Load Efficiency	76.97%	77.07%	76.97%	77.0%
25% Load Efficiency	71.25%	71.25%	71.25%	71.3%
Average Active Mode Efficiency	76.7%	76.8%	76.7%	76.8%
No Load Input Power (W)	0.44	0.44	0.44	0.44

This Power Supply Meets Tier 1 Efficiency Standards At 115VAC / 60Hz

Test Lab: Usai Technology Services Co., Ltd. Date: 2008-11-4
 Technician: Ethan.Chen

Sample #1 Test Results - 230 VAC / 50 Hz

Output Measurements

AC Input Measurements

Load Condition #1: 100%			
Set Output Current to	1000 mA	Measured Input Power	15.01 W
Min Output Current	980 mA	Measured Input Voltage	230 VAC
Max Output Current	1020 mA	Measured Frequency	50 Hz
Measured Output Current	1000 mA	True Power Factor	0.537
Measured Output Voltage	11.93 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	11.93 W	Calculated Power Consumed	3.08 W
		Calculated Efficiency (Ouput/Input)	79.48%
Load Condition #2: 75%			
Set Output Current to	750 mA	Measured Input Power	11.36 W
Min Output Current	730 mA	Measured Input Voltage	230 VAC
Max Output Current	770 mA	Measured Frequency	50 Hz
Measured Output Current	750 mA	True Power Factor	0.532
Measured Output Voltage	12.01 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	9.01 W	Calculated Power Consumed	2.35 W
		Calculated Efficiency (Ouput/Input)	79.29%
Load Condition #3: 50%			
Set Output Current to	500 mA	Measured Input Power	7.86 W
Min Output Current	480 mA	Measured Input Voltage	230 VAC
Max Output Current	520 mA	Measured Frequency	50 Hz
Measured Output Current	500 mA	True Power Factor	0.492
Measured Output Voltage	12.10 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	6.05 W	Calculated Power Consumed	1.81 W
		Calculated Efficiency (Ouput/Input)	76.97%
Load Condition #4: 25%			
Set Output Current to	250 mA	Measured Input Power	4.27 W
Min Output Current	230 mA	Measured Input Voltage	230 VAC
Max Output Current	270 mA	Measured Frequency	50 Hz
Measured Output Current	250 mA	True Power Factor	0.405
Measured Output Voltage	12.17 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	3.04 W	Calculated Power Consumed	1.23 W
		Calculated Efficiency (Ouput/Input)	71.25%
Average Active Mode Efficiency:		76.7%	
Sample #1 Meets The Tier 1 Active Efficiency Standard			

Load condition #5: No Load		AC Input Measurements	
Set the Output to No Load		Measured Input Power	0.44 W
		Measured Input Voltage	230 VAC
		Measured Frequency	50 Hz
		True Power Factor	0.099
		Total Harmonic Distortion (THD)	%
Sample #1 Meets The Tier 1 No Load Standard			

Sample #2 Test Results - 230 VAC / 50 Hz

Output Measurements

AC Input Measurements

Load Condition #1: 100%			
Set Output Current to	1000 mA	Measured Input Power	15.01 W
Min Output Current	980 mA	Measured Input Voltage	230 VAC
Max Output Current	1020 mA	Measured Frequency	50 Hz
Measured Output Current	1000 mA	True Power Factor	0.542
Measured Output Voltage	11.93 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	11.93 W	Calculated Power Consumed	3.08 W
		Calculated Efficiency (Ouput/Input)	79.48%
Load Condition #2: 75%			
Set Output Current to	750 mA	Measured Input Power	11.36 W
Min Output Current	730 mA	Measured Input Voltage	230 VAC
Max Output Current	770 mA	Measured Frequency	50 Hz
Measured Output Current	750 mA	True Power Factor	0.536
Measured Output Voltage	12.01 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	9.01 W	Calculated Power Consumed	2.35 W
		Calculated Efficiency (Ouput/Input)	79.29%
Load Condition #3: 50%			
Set Output Current to	500 mA	Measured Input Power	7.85 W
Min Output Current	480 mA	Measured Input Voltage	230 VAC
Max Output Current	520 mA	Measured Frequency	50 Hz
Measured Output Current	500 mA	True Power Factor	0.493
Measured Output Voltage	12.10 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	6.05 W	Calculated Power Consumed	1.80 W
		Calculated Efficiency (Ouput/Input)	77.07%
Load Condition #4: 25%			
Set Output Current to	250 mA	Measured Input Power	4.27 W
Min Output Current	230 mA	Measured Input Voltage	230 VAC
Max Output Current	270 mA	Measured Frequency	50 Hz
Measured Output Current	250 mA	True Power Factor	0.403
Measured Output Voltage	12.17 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	3.04 W	Calculated Power Consumed	1.23 W
		Calculated Efficiency (Ouput/Input)	71.25%
Average Active Mode Efficiency:		76.8%	
Sample #2 Meets The Tier 1 Active Efficiency Standard			

Load condition #5: No Load		AC Input Measurements	
Set the Output to No Load		Measured Input Power	0.44 W
		Measured Input Voltage	230 VAC
		Measured Frequency	50 Hz
		True Power Factor	0.100
		Total Harmonic Distortion (THD)	%
Sample #2 Meets The Tier 1 No Load Standard			

Sample #3 Test Results - 230 VAC / 50 Hz

Output Measurements

AC Input Measurements

Load Condition #1: 100%			
Set Output Current to	1000 mA	Measured Input Power	15.01 W
Min Output Current	980 mA	Measured Input Voltage	230 VAC
Max Output Current	1020 mA	Measured Frequency	50 Hz
Measured Output Current	1000 mA	True Power Factor	0.537
Measured Output Voltage	11.93 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	11.93 W	Calculated Power Consumed	3.08 W
		Calculated Efficiency (Output/Input)	79.48%
Load Condition #2: 75%			
Set Output Current to	750 mA	Measured Input Power	11.36 W
Min Output Current	730 mA	Measured Input Voltage	230 VAC
Max Output Current	770 mA	Measured Frequency	50 Hz
Measured Output Current	750 mA	True Power Factor	0.532
Measured Output Voltage	12.01 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	9.01 W	Calculated Power Consumed	2.35 W
		Calculated Efficiency (Output/Input)	79.29%
Load Condition #3: 50%			
Set Output Current to	500 mA	Measured Input Power	7.86 W
Min Output Current	480 mA	Measured Input Voltage	230 VAC
Max Output Current	520 mA	Measured Frequency	50 Hz
Measured Output Current	500 mA	True Power Factor	0.493
Measured Output Voltage	12.10 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	6.05 W	Calculated Power Consumed	1.81 W
		Calculated Efficiency (Output/Input)	76.97%
Load Condition #4: 25%			
Set Output Current to	250 mA	Measured Input Power	4.27 W
Min Output Current	230 mA	Measured Input Voltage	230 VAC
Max Output Current	270 mA	Measured Frequency	50 Hz
Measured Output Current	250 mA	True Power Factor	0.405
Measured Output Voltage	12.17 V	Total Harmonic Distortion (THD)	%
Calculated Output Power	3.04 W	Calculated Power Consumed	1.23 W
		Calculated Efficiency (Output/Input)	71.25%
Average Active Mode Efficiency:		76.7%	
Sample #3 Meets The Tier 1 Active Efficiency Standard			

Load condition #5: No Load		AC Input Measurements	
Set the Output to No Load		Measured Input Power	0.44 W
		Measured Input Voltage	230 VAC
		Measured Frequency	50 Hz
		True Power Factor	0.099
		Total Harmonic Distortion (THD)	%
Sample #3 Meets The Tier 1 No Load Standard			

Attachment (Contains)	
Cover page:	1 page
Label:	1 page
Photo-documentation:	2 pages
Total:	4 pages

Label Drawing

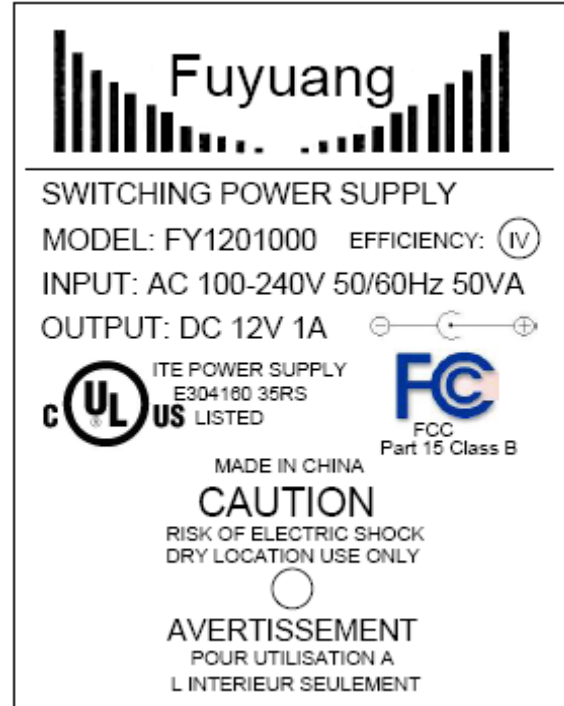
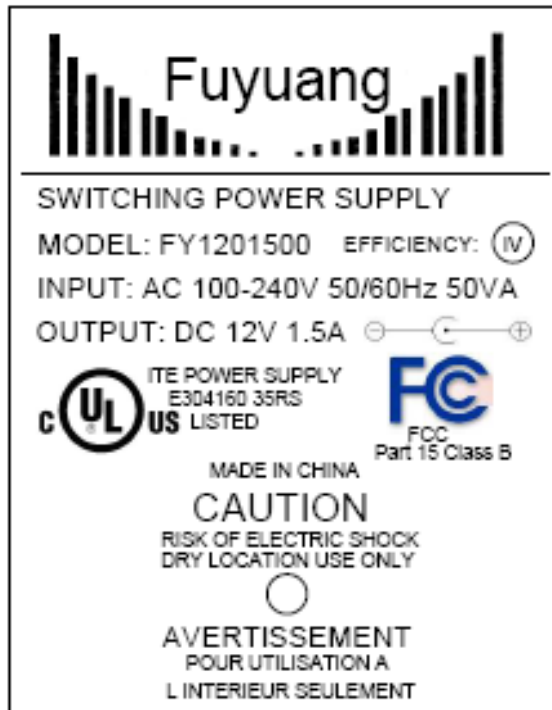




Fig. 1 – Top Overall view



Fig. 2 – Bottom view

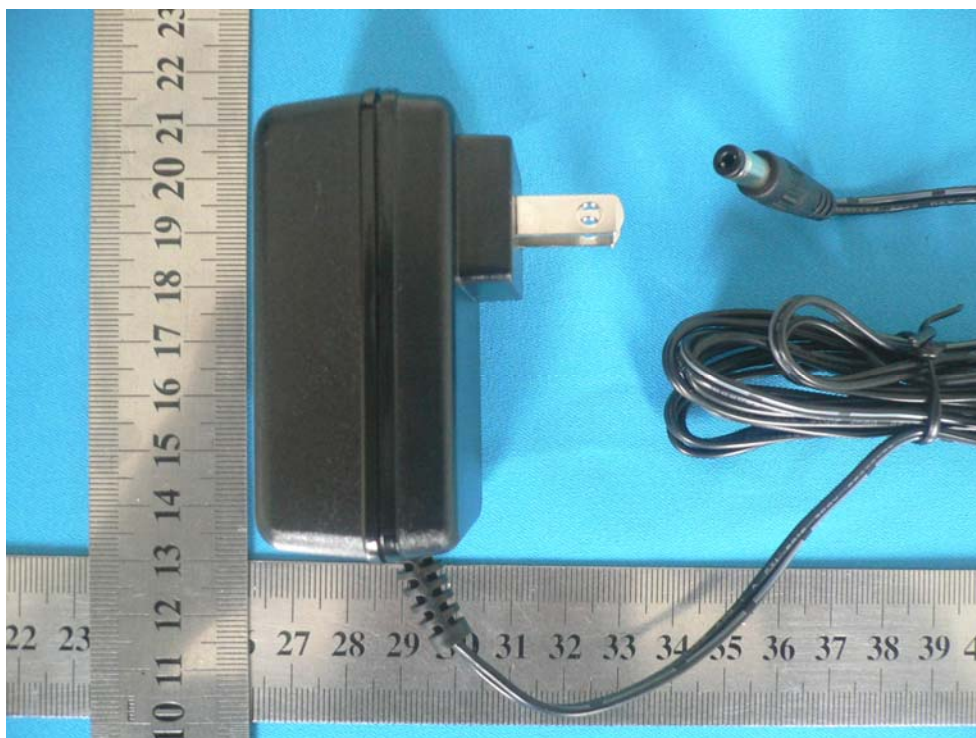


Fig. 3 –Side view