

SPECIFICATION

High Quality Switching Desktop Adapter

Universal AC Input
48W 12.0VDC 4.0A Output

P/N: A120040RG1

****Specification approval****

This specification (total 8 pages including cover page) is approved in it's entirety by:

Company Name

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1. Introduction

1.1 Power Supply Overview

This specification defines the 48W power adapter model A120040RG1, it's cosmetic and technical specifications.

The adapter shall meet the requirements of The RoHS Directive.

2. Electrical Specification

2.1 Input Voltage

Operating voltage range 90-264VAC~, rated operating voltage 100-240VAC~, the power shall work normally and meet all electrical requirements as per the load range specified in section 2.7.

2.2 Input Frequency

Input AC voltage frequency range 47~63Hz.

Input rated AC voltage frequency range 50/60Hz.

2.3 Inrush Current

Peak inrush current shall be limited to 50 A while the cold start at 25 degrees C and rated input voltage, and shall not result in a permanent damage of the power supply under any conditions of load and input voltage as specified at any input voltage in section 2.1.

2.4 Input Current Limiting

The input current should be less than 1.2 A, under minimum AC input and full loads.

2.5 Efficiency

The power supply efficiency shall be greater than 83.8 % under rated input voltage. It will be measured at the typical load.

2.6 DC Output voltage range

No load: 12V :11.7V—12.8V(measure the terminal of output wire in the adapter)

Full load: 12V: 11.7V—12.6V(measure the terminal of output wire in the adapter)

2.7 DC Output Current

Output	Min.	Max.	Unit
4	0	4	Amps

2.8 Output Ripple and Noise

The following is output ripple and noise requirements, it will be met throughout the load ranges specified in Section 2.6 and under all input voltage conditions as specified Section 2.1, Measurements will be made with an oscilloscope set to 20MHz bandwidth limit. The outputs will be bypassed with one0.1uF multilayer (type X7R) and one 10uF tantalum electrolytic (low ESR) capacitors.

Output	Max.
< 120MV	120MV

2.9 Overshoot at turn-on/ turn-off

Any overshoot at turn on or turn off shall be less than 110 % of rated output voltage.

2.10 Over Voltage Protection

The power supply will provide over voltage protection function as defined below.

Output	Min.	Max	Unit
12V	13.6	18	V

2.11 Short Circuit Protection

An output short circuit will automatically enter the protected status .The power supply will protect without damage to overseers of to the unit (components, connectors, etc) under the protection of process.

2.12 Over Current Protection

The power supply shall meet the limitation requirement as below table without any damage, the unit shall recover the function after the protection is removed.

Output	Min.	Max	Unit
4	5	8	A

2.13 Hold up Time

Hold-up time no less than 10 mS at 100 Vac input, the output loading should be set up with full load during the test.

2.14 Start up Time

Start up time no more than 3 seconds at 100 Vac input, the output loading should be set up with full load during the test.

3. Environment Requirement

3.1 Temperature

Operating Ambient: 0°C - +40 °C

Non-operating Ambient: -20°C - +75 °C

3.2 Humidity

Operating: 20%~85%relative humidity (Non- condensing)

Non-operating: 10%~90% relative humidity (Non- condensing)

4. Reliability

4.1 Burn-in and Life test

2 hrs burn-in

5. Product Safety Requirement

5.1 Standard

Meet IEC60950, EN55022 standard requirement.

5.2	类型/Type	国家/Country	类型/Type	国家/Country
	<input checked="" type="checkbox"/> UL/CUL	美国/USA	<input checked="" type="checkbox"/> CCC	中国/China
	<input checked="" type="checkbox"/> TUV/GS	欧洲/Europe	<input checked="" type="checkbox"/> PSE	日本/Japan
	<input checked="" type="checkbox"/> FCC	美国/USA	<input checked="" type="checkbox"/> CB	欧洲/Europe
	<input checked="" type="checkbox"/> CE	欧洲/Europe	<input checked="" type="checkbox"/> C-TICK	澳洲/Australia
	<input type="checkbox"/> IRAM	阿根廷/Argentina	<input checked="" type="checkbox"/> EK	韩国/Korea
	<input type="checkbox"/> MEPS	澳洲/Australia		

5.3 Leakage Current

Leakage current shall not exceed 5 mA under 240Vac / 50Hz input condition.

5.4 Dielectric Strength Testing

The adapter shall maintain following levels for a minimum of 3 seconds without failure.

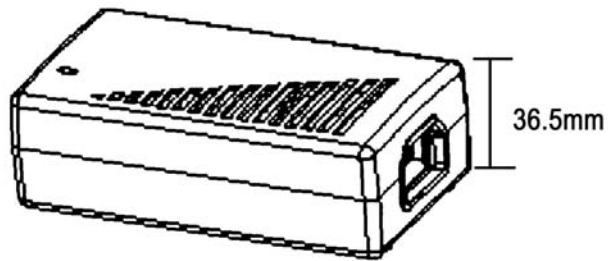
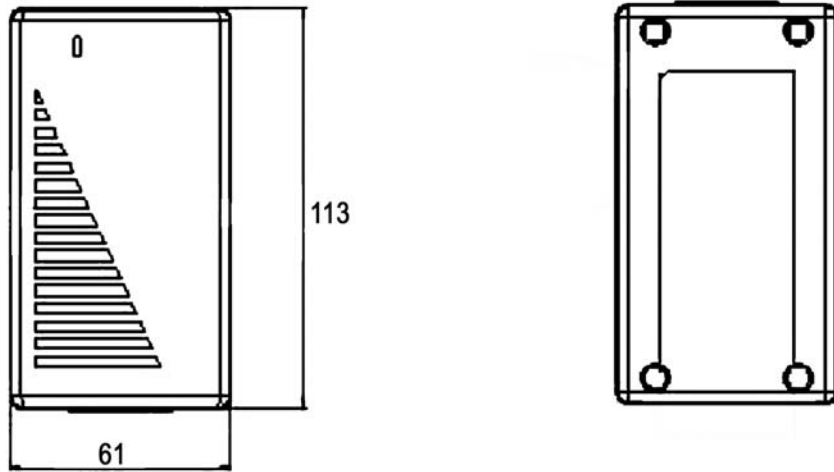
Item	Specification	Remark
Primary to Secondary	1500KVac < 5mA	
Primary to P.G	-	No arcing No broken
Secondary to P.G	-	

5.5 Insulation Resistance

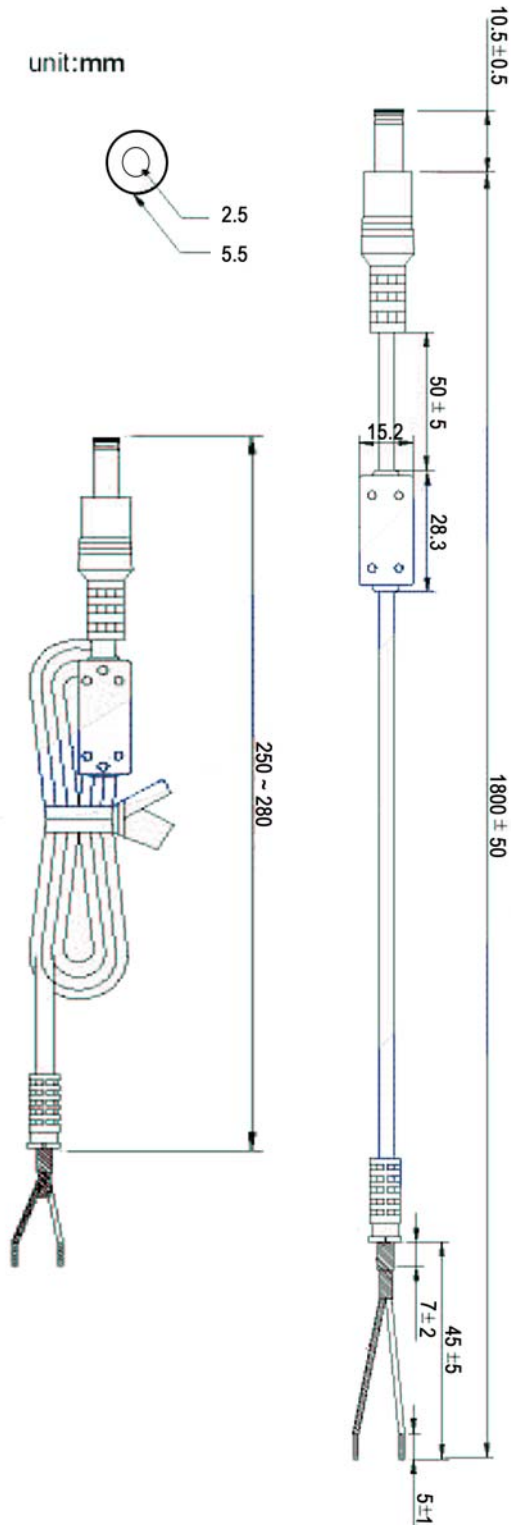
Primary to Secondary: 10 Meg. Ohms min. 500VDC

Primary to P.G: 10 Meg. Ohms min. 500VDC

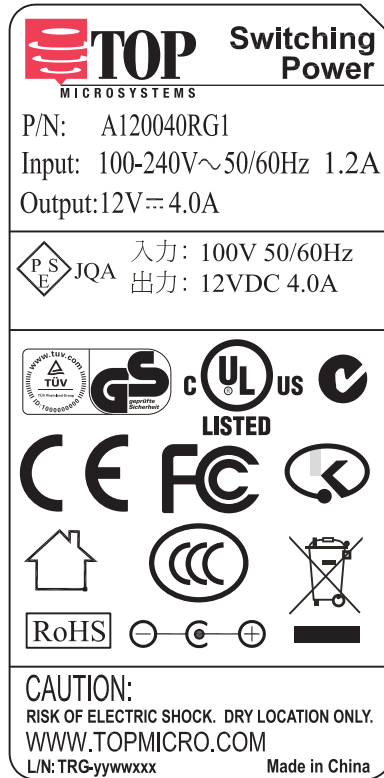
7. Mechanical Drawing



8. DC Plug



9. Label



10. Packing

10.1 Inner package: PE bag

10.2 Outer package: paper-box.

