# L'ARSON NUOVA

# AM09257 24V/3A 72W SWITCHING ADAPTOR

# **SPECIFICATIONS**

L	RD	1								
	Ver: 1			L'A	ARSON NUC	OVA	AM092	257	Pag	ge 1

# TABLE OF CONTENTS

- 1. SCOPE
- 2. SPECIFICATION NUMBER
- 3. ENVIRONMENTAL REQUIREMENTS
- 4. INPUT REQUIREMENTS
- 5. INTRODUCTION
- 6. DC INSULATION RESISTANCE
- 7. DIELECTRIC WITHSTAND-VOLTAGE
- 8. MAIN FUSE
- 9. INRUSH CURRENT
- 10. TIME SEQUENCE
- 11. EFFICIENCY
- 12. SAFETY STANDARD
- 13. RFI EMISSION
- 14. OUTPUT RATED & ELECTRICAL SPECIFICATIONS
- 15. RELIABILITY
- 16. OUTLOOK DRAWING
- 17. NAME PLATE

RD	1								
Ver: 1			L'A	ARSON NUO	VA	AM092	257	Pa	ge 2

#### 1. SCOPE

This document is applied to AM09257 model for S.M.P.S

#### 2. SPECIFICATION NUMBER

AMPLUS part number: AM09257 24V/3A

Customer part number:

# 3. ENVIRONMENTAL REQUIREMENTS

Operating temperature: 0 °C -- 40 °C

Storage temperature :-25  $^{\circ}$ C -- +85  $^{\circ}$ C

Operating humidity : 30% -- 95% Storage humidity : 30% -- 98%

Operating bar : 1BAR

# 4. INPUT REQUIREMENTS

Regular input voltage: AC 100 –AC 240V

Variable input voltage range: AC 90V—AC264V

Rating frequency: 50Hz—60Hz Frequency range: 47Hz—63Hz

Input current: 1.5Arms MAX (at regular voltage & current)

#### 5. INTRODUCTION

The S.M.P.S Only 2.0cm in thickness, with various output plugs, suitable for laptop and a variety of appliances.

The S.M.P.S Particular design for 2-pin multi-plug.

The S.M.P.S A variety of efficiency work mode for saving power.

The S.M.P.S Overcurrent, overload, overheat, undervoltage protection.

The S.M.P.S Advanced dithering switch work mode, reduce electromagnetic interference

The S.M.P.S Overshock resistance switch circuit design, prevent device from instant impulse damage

The S.M.P.S Design with environment friendly materials, safe and healthy.

The S.M.P.S operated at input regular voltage AC 100V – 240V.

The S.M.P.S should be capable of a total continuous DC power output of 72 Watts.

The S.M.P.S should be capable of a total peak 80 Watts.

The S.M.P.S designed a energy saving to meet Europe energy star standard.

The S.M.P.S should be able to single output only. Refer output rated and electrical specifications table.

RD	1						
Ver: 1		L'ARSC	ON NUOVA	AM092	57	Pag	ge 3

The S.M.P.S will shut down automatically when the AC input voltage lower than AC 90 V.

The S.M.P.S output voltage will drop to very low when overload by overload protection.

The S.M.P.S should not be fired or emitted smoke by protection when the circuit is short.

The S.M.P.S will shut down automatically when output voltage is over 28.5V by overvoltage protection.

The S.M.P.S build-in thermal protector, when the transformer over heat (raise to 105°C), the circuit will be shut down by PWM IC thermal protector.

## 6. DC INSULATION RESISTANCE

Input – Output : 50MΩminimum (at 500VDC)

Input – Body metal :  $50M\Omega$ minimum (at 500VDC)

## 7. DIELECTRIC WITHSTAND - VOLTAGE

Input – Output: 3750VAC minimum (2s)

Input – Body metal: 3750VAC minimum (2s)

# 8. MAIN FUSE

Input fuse is 3.15A 250V

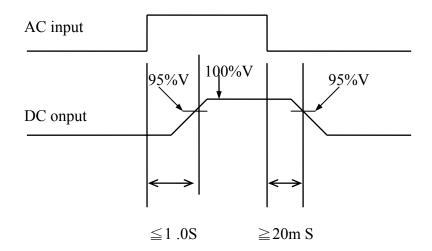
## 9. INRUSH CURRENT

Peak inrush current shall be limited to 30A for a cold start

# 10. TIME SEQUENCE

Time sequence should be satisfied to power ON/OFF, restart in power failure

AC switch at ON/OFF



RD	1								
Ver: 1	Ver: 1		L'A	RSON NUO	VA	AM092	257	Pa	ge 4

# 11. EFFICIENCY

The efficiency of the S.M.P.S must be satisfied the minimum 87%.

# 12. SAFETY STANDARD

To meet ETL-UL1950, CETL-C22.2 NO.950, GS-DIN EN60950

AS/NZS 4665.1: 2005, EuP 2005/32/EC

# 13. RFI EMISSION

EN55022: 2006+A1 EN61000-3-2: 2000 EN61000-3-3: 1995+A1

EN55024: 1998+A1+A2

FCC PART 15

# 14. OUTPUT RATED & ELECTRICAL SPECIFICATIONS

RATED OUTPUT (V)	24
Rated current(A)	3.0
Max. output voltage(V)	24.5
Min. output voltage(V)	23.2
Ripple & Noise(mV)	<150
Over load current(A)	>4.5
Over heat protection	YES
Rated power(W)	72
Switch frequency(KHZ)	132
Insulation class	II
Consumes(W)	<0.5W
Efficiency (%)	>87
Efficiency Level	V

# 15. RELIABILITY TESTING

# A. DC OUTPUT CORD PUSH/PULL TEST OF I/O CONECTOR SIDE

Test condition: 8kgf X10sec at Y axis; 5kgfX10sec at other 4 direction verticality RESULT: No cutting inner wire is acceptable

RD	1							
Ver: 1		L'A	ARSON NUC	OVA	AM092	257	Pag	ge 5



#### B. DC OUTPUT CORD PUSH/PULL TEST OF ADAPTOR SIDE

Test condition: 8kgf X10sec at 5 direction verticality

RESULT: No cutting inner wire is acceptable

#### C. CORD BENDING TEST OF I/O CONECTOR SIDE

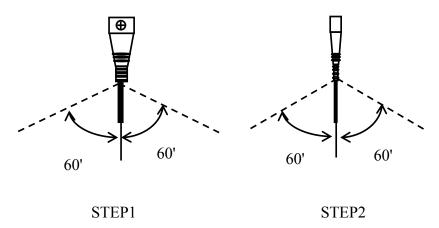
Test condition: 60'+60'=1 cycle, 30 cycle/1min, weight = 200g,

from step 1 to step 2 continuously

Step 1. 2000 cycle for difficult bending direction

Step 2. 3000 cycle for easy bending direction

RESULT: No cutting inner wire is acceptable



#### D. CORD BENDING TEST OF ADAPTOR SIDE

Test condition: 60'+60'=1 cycle, 30 cycle/1min, weight = 500g,

from step 1 to step 2 continuously

Step 1. 500 cycle for difficult bending direction

Step 2. 500 cycle for easy bending direction

RESULT: No cutting inner wire is acceptable

#### E. INDIVIDUAL DROP TEST

Test condition: 6 face, each face 1 time 70 cm, on the 5mm wooden board.

RESULT: Without opening of case and crack, etc. electric characteristic shall be

satisfied.light crack after test is acceptable.

RD	1									
Ver: 1			L'A	RSON NUO	VA	AM092	257	Pa	ge 6	

#### F. LOW TEMPERATURE STORAGE TEST

Keep on -30°C (Packing) for 168 hours, and check the action after 3 hours in 25°C.

RESULT: All normal function and meet specification.

#### G. HIGH TEMPERATURE STORAGE TEST

Keep on  $+70^{\circ}$ C (Packing) for 168 hours, and check the action after 3 hours in 25 °C.

RESULT: All normal function and meet specification.

#### H. HIGH HUMIDITY STORAGE TEST

Keep on +45 ℃95%RH (Packing) for 168 hours, and check the action after 3hour in 25 ℃.

RESULT: All normal function and meet specification.

#### I. TEMPERATURE CYCLE TEST

Keep on -45 °C (Packing) for 1 hour, then keep on +85 °C (Packing) for 1 hour

Repeat this cycle until 10 cycle, check the action after an hour in 25°C.

RESULT: All normal function and meet specification.

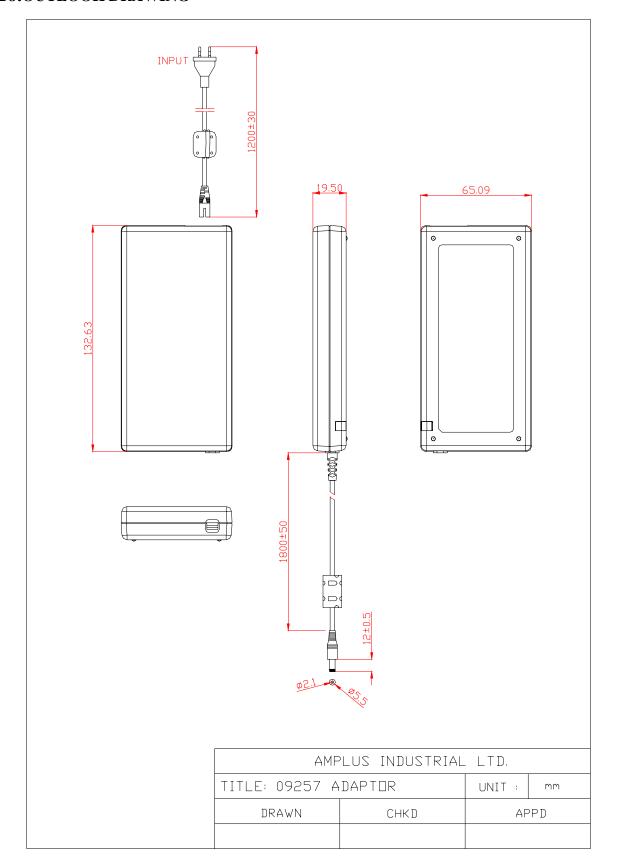
#### J. CURRENT- CARRYING OF HIGH VOLTAGE TEST

Select power consumption at a standard load condition. The test samples shall be active with input voltage is 280V/50Hz,50°C,48 hours, confirm its operation after left in the standard condition for 1 hour.

RESULT: any case deformation, smoking, or burn by heat should not be found.

RD	1								
Ver: 1			L'A	RSON NUO	VA	AM092	257	Paş	ge 7

# 16.OUTLOOK DRAWING



RD	1								
Ver: 1			L'A	RSON NUO	VA	AM092	257	Pa	ge 8

# 17. NAME PLATE

**MODEL: 09257H AC TO DC ADAPTOR** 

INPUT: AC 100-240V 1500mA 50Hz/60Hz Office Equipment Use Only

OUTPUT: DC 24V 3A

Nur für Geräte der Informationstechnik

Caution: Please be sured to select the correct polarity and voltage before connecting your device. Do not select the voltage and change polarity during the power supply is operating.

Attention: S'il vous plaît être assurés de sélectionner la polarité et la tension avant de brancher votre appareil. Ne choisissez pas la tension et la polarité changer au cours de l'alimentation est en marche.

Vorsicht: Stellen Sie bitte sicher, dass Sie die korrekte Polarität und Spannung auswählen, bevor Sie das Gerät an das Stromnetz anschliessen. Verändern Sie Spannung und Polarität nicht, solange das Gerät an das Stromnetz angeschlossen ist.









Made in China

RD 1			
Ver: 1	L'ARSON NUOVA	AM09257	Page 9