AM 09257H SWITCHING ADAPTOR SPECIFICATIONS

AM09257H
(output from 12Vd.c. to 24Vd.c., max. 70 watt)
SWITCHING ADAPTOR

SPECIFICATIONS

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Prepared by: **Checked by:** **Approved by:**

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1. SCOPE

This document is applied to AM09257H model for S.M.P.S

2. SPECIFICATION NUMBER

AMPLUS part number : AM09257H

Customer part number :

3. ENVIRONMENTAL REQUIREMENTS

Operating temperature: 0 □ -- 40 □

Storage temperature :-25 □ -- +85 □

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.

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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□),the circuit will be shut down by PWM IC thermal protector.
The S.M.P.S can be changeable output voltage by changeable slot.

6. DC INSULATION RESISTANCE

Input – Output : 50MΩminimum (at 500VDC)
Input – Body metal : 50MΩminimum (at 500VDC)

7. DIELECTRIC WITHSTAND - VOLTAGE

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

8. MAIN FUSE

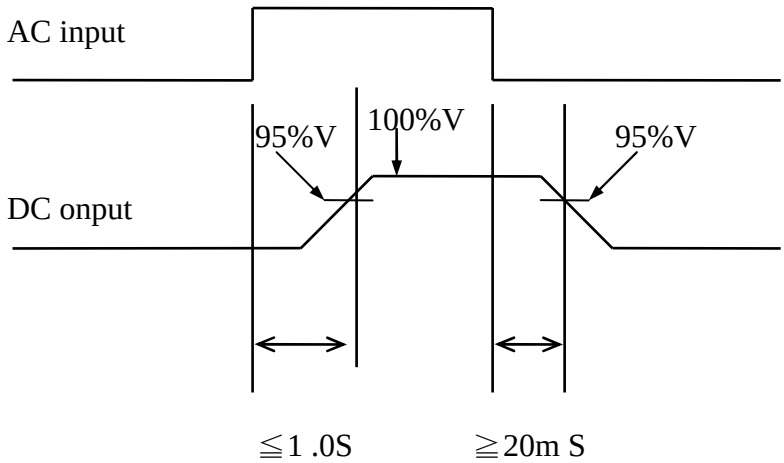
Input fuse is 3.15A 250V

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



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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)	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**
Rated current(A)	5.0	4.8	4.7	4.5	4.3	4.1	3.9	3.7	3.5	3.35	3.2	3.1	3.0
Max. output voltage(V)	12.5	13.5	14.5	15.5	16.5	17.5	18.5	19.5	20.5	21.5	22.5	23.5	24.5
Min. output voltage(V)	11.5	12.5	13.5	14.5	15.5	16.5	17.5	18.5	19.5	20.2	21.2	22.2	23.2
Ripple & Noise(mV)	<150	<150	<150	<150	<150	<150	<150	<150	<150	<150	<150	<150	<150
Over load current(A)	>7.1	>6.8	>6.6	>6.4	>6.1	>5.9	>5.6	>5.4	>5.2	>5.0	>4.8	>4.7	>4.5
Over heat protection	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Rated power(W)	60	62.4	65.8	67.5	68.8	69.7	70.2	70.3	70	70.35	70.4	71.3	72
Switch frequency(KHZ)	132	132	132	132	132	132	132	132	132	132	132	132	132
Insulation class	II	II	II	II	II	II	II	II	II	II	II	II	II
Consumes(W)	<0.5W	<0.5W	<0.5W	<0.5W	<0.5W	<0.5W	<0.5W	<0.5W	<0.5W	<0.5W	<0.5W	<0.5W	<0.5W
Efficiency（%）	＞87	＞87	＞87	＞87	＞87	＞87	＞87	＞87	＞87	＞87	＞87	＞87	＞87
Efficiency Level	V	V	V	V	V	V	V	V	V	V	V	V	V

Note: ADJ . output voltage procedure

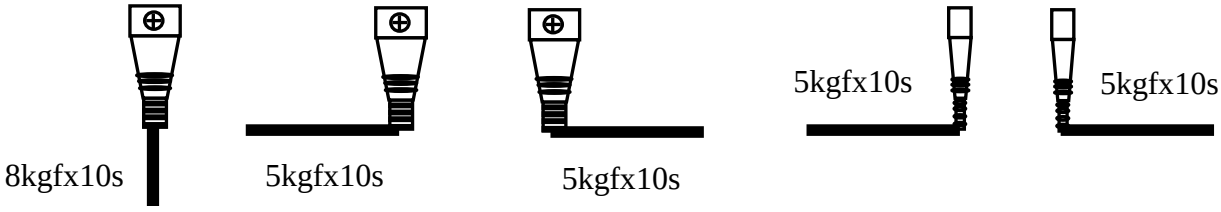
1. **Power off**
2. **Select suitable output voltage form 12V to 24V by changeable slot.**
3. **Connect to Load**
4. **Power ON**

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



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

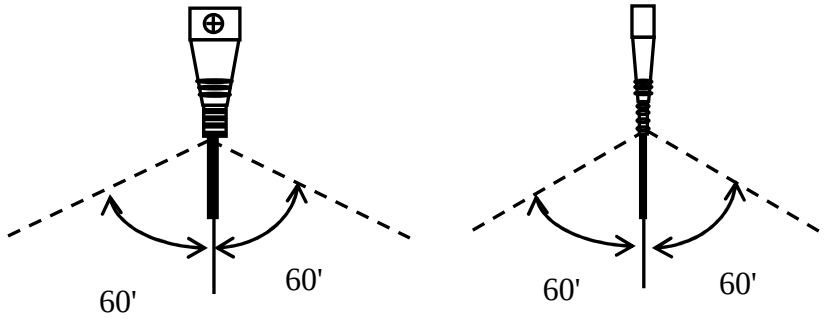
Test condition: 60'+60'=1 cycle, 30 cycle/1min, weight = 200g ,

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



STEP1 STEP2

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.

F. LOW TEMPERATURE STORAGE TEST

Keep on -30□ (Packing) for 168 hours, and check the action after 3 hours in 25□.
RESULT: All normal function and meet specification.

G. HIGH TEMPERATURE STORAGE TEST

Keep on +70□ (Packing) for 168 hours, and check the action after 3 hours in 25□.
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□(Packing) for 1 hour, then keep on +85□(Packing) for 1 hour
Repeat this cycle until 10 cycle, check the action after an hour in 25□.
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□,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.

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16.OUTLOOK DRAWING