TECHNICAL
DATA SHEET

AM250U-540AP-R

PHIHONG

DESCRIPTION

This 250-watt Desktop C14 Adapter delivers high efficiency and reliable performance, making it an ideal power solution for modern electronic devices. Its versatile design supports global applications, including networking, telecommunications, industrial automation, and more.

Features

Class B EMI
US DoE Level VI Efficiency compliance
EU CoC Ver 5 Tier 2 Compliance
Over-Voltage, Over-Current,
Short Circuit, &
Over-Temperature Protection
5,000 Meters Operating Altitude

Applications

Networking Device | Monitor|
Notebook | Industrial

Certifications & compliance

CE/CB/UL/RCM/PSE/UKCA/PSB/C
CC/KCC/BSMI
Comply with ErP standard,
Comply with DOE standard
IEC 62368-1

Technical Summary

Parameters	Value
Input Voltage	100Vac~240 Vac
Output voltage regulation	54V±5%
Output power	250 Watts continuous
Efficiency	> 89% DOE Level VII Draft, CoC V5 Tier 2
Dimensions	180(L) x 92.5(W) x37(H) mm
Weight	760±30 g

TECHNICAL DATA

Input

AC input voltage rating	100Vac~240 Vac
AC input voltage range	90Vac~264 Vac.
AC input frequency	50 ~ 60 Hz.
AC input current	3.5A (rms) Max @ 100Vac/240Vac
In-rush current	Shall be less than the rating of adapter critical component (including rectifiers, fuse surge and current limiting device), At 240Vac / Max load
Leakage current	< 0.25mA @ 264Vac/50Hz

Output

Output voltage regulation	54V±5%
Min. load current	0 A
Max. load current	4.63A
Output Ripple & Noise	≦ 500mVp-p, For 100Vac/ 240Vac, at Cable end)

Note: Measurements shall be made with an oscilloscope with 20MHz Bandwidth.
Outputs should be bypassed at a connector with a 0.1uF ceramic capacitor and a 10uF electrolytic capacitor (Low ESR).

General characteristics

Output power	250 Watts continuous
Efficiency	For 115Vac/60Hz, 230Vac/50Hz. DC Cable≦1.5M, 18AWG - Average Efficiency: ≧ 89%, DOE Level VII Draft, CoC V5 Tier 2 *Note: Testing at 100%, 75%, 50%,25% of rated current output after 30 minutes warm-up and then computing the arithmetic average of these four values.*
Power saving	≦ 150mW max. for 115Vac/60Hz, 230Vac/50Hz , at 25℃ * By integrator mode with 1 minutes
Turn on delay time	≦ 3 Sec, For 100Vac/4.63A (Cold startup)
Hold up time	≧ 10mS, For 100Vac or 240Vac, at 4.63A load
Rise time	≦ 100mS, For 100Vac/4.63A
Transient response	Hi-Limit & Lo-Limit = Vout ±10% (ΔVo) Output with (1)0A~2.32A(0~50%), (2)2.32A~4.63A(50~100%), T-Hi = T-low = 100Hz(10mS), and 1KHz(1mS),Slew rate = 0.1A/uS
Over shoot	Vout ±10% (ΔVo), at 100Vac/240Vac, 0A/4.63A
Short circuit protection	No damage and the shall be auto recovery
Over voltage protection	Auto recovery, Vo < 65V, no damage
Over current protection	7A Max
Over temp. protection	Auto recovery, The power supply will enter into shut down while the abnormal thermal rise occurs. No fire, no smoke
Surface Temp rise	The case temperature rise shall less than or equal ΔT 52℃ at full load
E-cap Life time	> 5 years @ 100Vac, 80% Load at 45℃
Audible noise	< 30 dB, For 110Vac/60Hz, 220Vac/50Hz (1)Position the microphone 30 centimeters above the x-y center of the AC adapter (2) 0~4.63A, step 0.5A
Hi-Pot Test	Pri to Sec: ≤ 10mA @ AC 3.0K Vac (or DC 4242V) for 1 min.≤ 10mA @ 3.6K Vac for 3 Sec. at MP
Insulation Resistance	Pri to Sec：≥ 20M ohm @ 500Vdc for 1 Sec

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Environment

Operating temperature	0℃ to 45℃
Storage Temperature	-20℃ to 60℃
Operating relative humidity	20~80% RH
Storage relative humidity	10~90% RH
Operation Altitude	5000 meters

Safety requirement

	IEC 62368-1 CE/CB/UL/RCM/PSE/UKCA/PSB/CCC/KCC/BSMI Comply with ErP standard, Comply with DOE standard

Mechanical

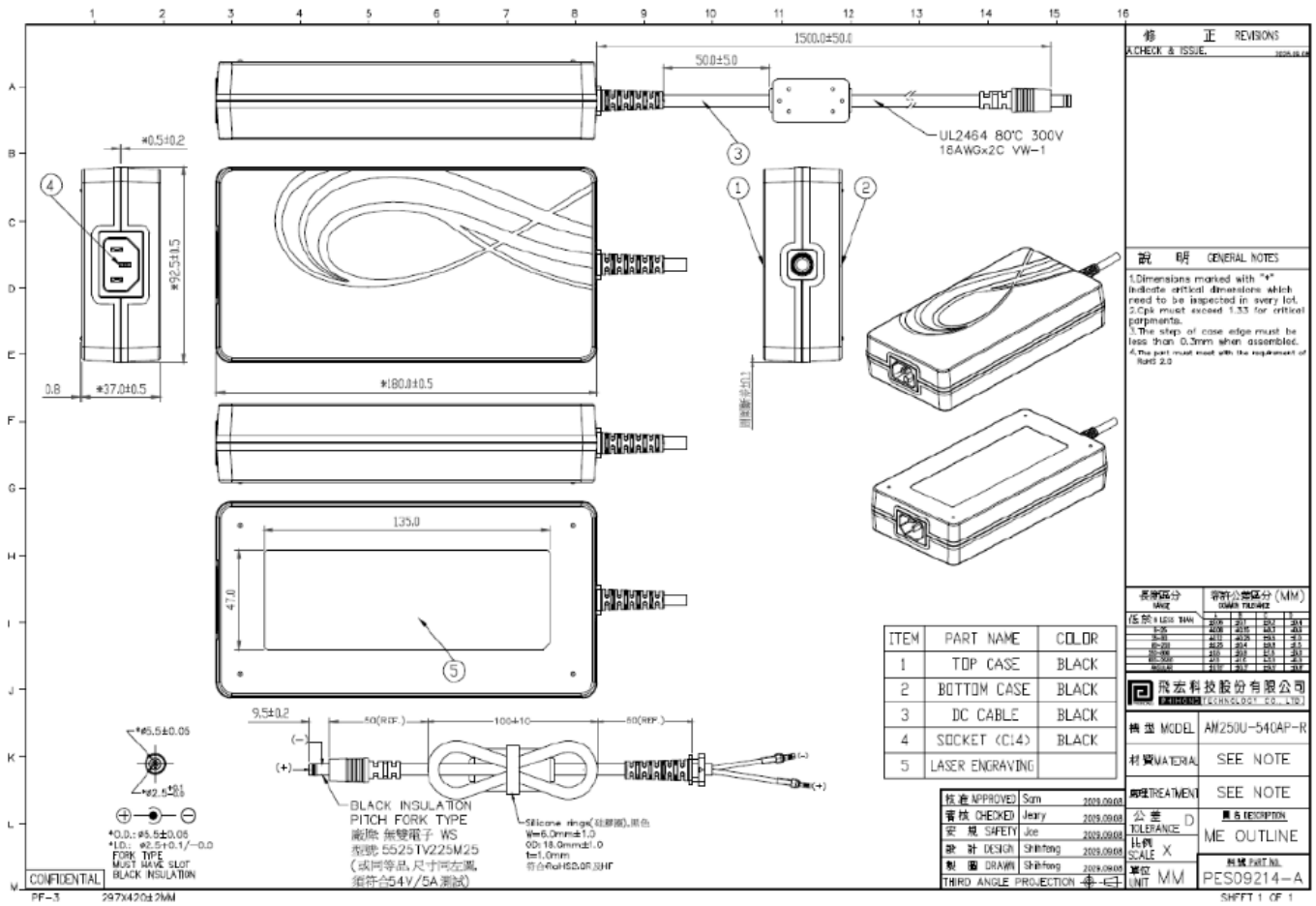
Dimension	180(L) x 92.5(W) x37(H) mm
Weight	760±30 g

Immunity requirement

EMI requirement	FCC PART 15B, CLASS B CISPR32 EN55032 CLASS B	
EMS requirement	ESD:	IEC61000-4-2 Criteria B, Contact ±8KV, Air ±15KV.
	EFT:	IEC61000-4-4 Criteria A ; Impulse: +/-1KV applied to L,N For 1 min at single voltage level and polarity.
	Surge:	IEC61000-4-5 Criteria B -Source Voltage and frequency:220Vac/50Hz, single phase. -Waveform: Combination waveform(1.2/50us) -Output impedance: 2ΩFor differential mode, 12ΩFor common mode -Polarity: Positive/ Negative, ±5 times -Line to Neutral: ±2.0 KV -L to G, N to G: ±4.0 KV -Pulse Repetition rate: 60 sec.

TECHNICAL DATA

Outline



ITEM	PART NAME	COLOR
1	TOP CASE	BLACK
2	BOTTOM CASE	BLACK
3	DC CABLE	BLACK
4	SOCKET (C14)	BLACK
5	LASER ENGRAVING	

APPROVED	Sam	2009.09.08
CHECKED	Jeary	2009.09.08
SAFETY	Joe	2009.09.08
DESIGN	Shihfong	2009.09.08
DRAWN	Shihfong	2009.09.08

PHIHONG 50 YEARS OF HISTORY IN THE POWER SUPPLIES INDUSTRY

Since its founding in 1972, Phihong has emerged as a prominent power supply company, serving as a key supplier of solutions for consumer, mobile/portable, enterprise, telecom, datacom, and industrial applications.