



RoHS

## FEATURES

- Universal input Voltage : 90 - 264VAC, 50/60Hz
- DoE Level VI efficiency
- Over voltage, Over current, Short circuit protection
- Fully enclosed plastic case
- 2 pole USA plug
- Small wall-mounted type

MH12-A-A series is a small wall-mounted type adapter. This series features universal input voltage, low power consumption, high efficiency, high reliability, and safer isolation, meets IEC/EN61000-4, CISPR22/EN55032 and UL60950. The entire series supplies different models with output voltages range between 3V and 24V that can satisfy the demands for the various types of consumer electronic devices, telecommunication devices, office and civil applications devices.

## Electric Specifications

	Model	MH12-0300250A-A	MH12-0500250A-A	MH12-0900150A-A	MH12-1200125A-A	MH12-1500100A-A	MH12-2400065A-A
Output	DC Voltage	3V	5V	9V	12V	15V	24V
	Rated current	2.5A	2.5A	1.5A	1.25A	1.0A	0.65A
	Current range	0-2.5A	0-2.5A	0-1.5A	0-1.25A	0-1.0A	0-0.65A
	Rated power	7.5W	12.5W	13.5W	15W	15W	15.6W
	Voltage Accuracy	±7%	±5%	±5%	±5%	±5%	±5%
	Line Regulation	±1%	±1%	±1%	±1%	±1%	±1%
	Load Regulation	±5%	±5%	±5%	±5%	±5%	±5%
	Ripple & Noise*	80mVp-p max	80mVp-p max	90mVp-p max	120mVp-p max	150mVp-p max	240mVp-p max
	Start-up time	3s@100-240VAC, full load					
	Hold-up time	10ms@115VAC, full load, 20ms@230VAC, full load					
	Rise time	30ms max					
	Overshoot/ Undershoot	±10%					
	Transient response	Output voltage range ±5%,load 25%-50%,50%-75%,slope:0.5A/us,frequency:50Hz-10KHZ					
Input	Input voltage	90 - 264VAC					
	Input frequency	47 - 63HZ					
	Efficiency(Typ.)	71.21%(ERP V)	80.21%	83.59%	84.13%	84.13%	84.32%
	Input current	0.35A Max@100VAC, full load					
	Inrush current	Cold start:30A/115VAC,60A/230VAC					
	No load power	<0.1W					
	Leakage current	0.25mA Max@240VAC					
Protections	Over voltage	Rated output voltage 110%-150%					
	Over current	Rated output current 110%-200%,self-recovery					
	Short circuit	Hiccup, Continuous, self-recovery					
Note	* Ripple and noise are measured by 20MHz bandwidth; at full load, 100-240VAC input, output terminated with a 0.1uF ceramic capacitor and a 10uF electrolytic capacitor.						

## General Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Isolation Voltage	Input-output, Test 1 minute, leakage current<5mA	3000	--	--	VAC
Insulation Resistance	Input-output, add 500Vdc test voltage	100	--	--	MΩ
Operating Temperature		-10	--	40	°C
Storage Temperature		-25	--	70	
Operating Humidity		--	--	90	%RH
Storage Humidity		--	--	95	
Altitude		--	--	2000	m
Lifetime	25°C	2			years
MTBF	MIL-HDBK-217F (25°C)	50000	--	--	hours

## Physical Specifications

Casing Material	PC,120°C 94V-0
Color	Black/White(Other color can be designed by customization)
Dimension	(L)66.00mm*(W)39.00mm*(H)29.00mm
Weight	85g(Typ.)
Cooling Method	Free air convection

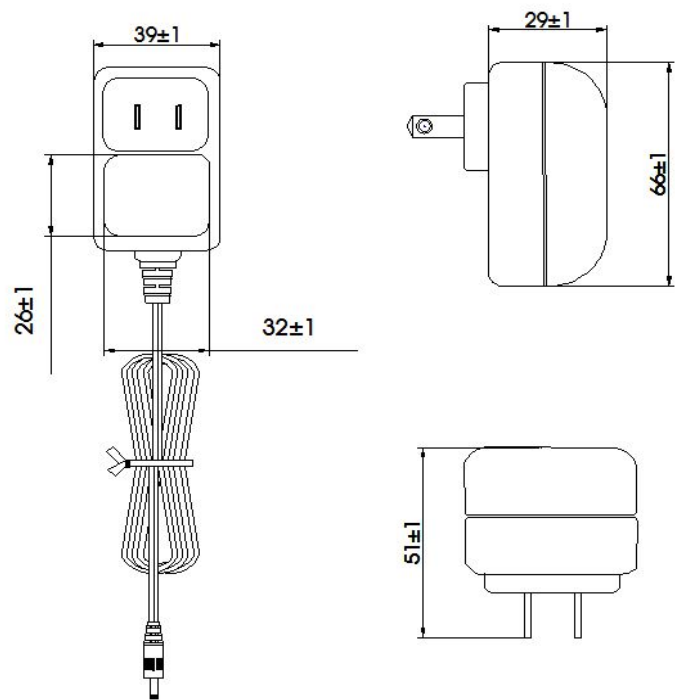
## EMC Specifications

EMI	RE	EN55032, CLASS B			
	CE	EN55032, CLASS B			
EMS	ESD	IEC/EN61000-4-2 Contact ±8KV/Air ±15KV			perf. Criteria B
	RS	IEC61000-4-3 3V/m			perf. Criteria A
	CS	IEC61000-4-6 3Vrms			perf. Criteria A
	Surge	IEC/EN61000-4-5 ±2KV/ ±2KV			perf. Criteria B

## Safety Standards

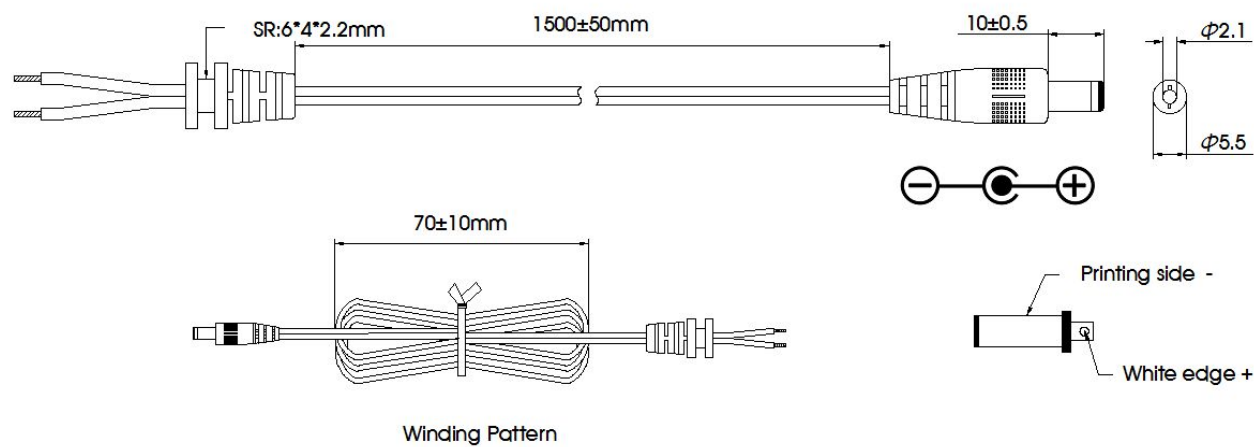
Application fields	Standard	Status	Note
IT	UL60950	Approved	
AV	UL1310	Meet	
Lighting	UL1310	Meet	

Mechanical Drawing



Note:  
No display tolerance: ±0.12  
Unit: mm

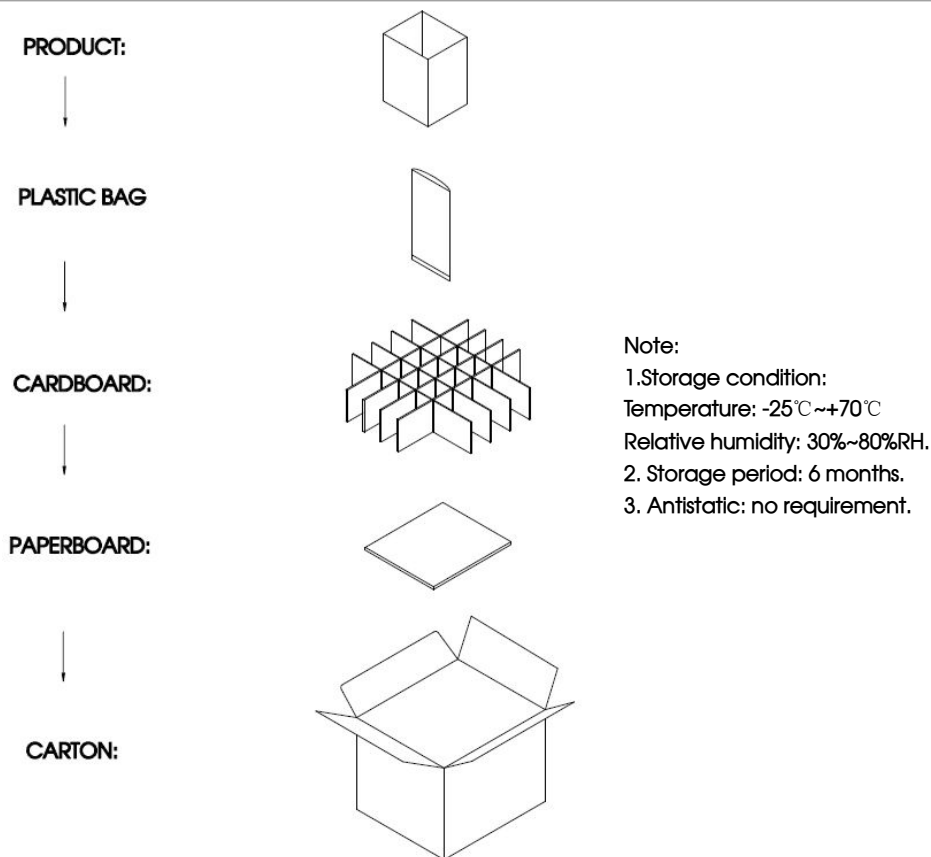
DC Wire Drawing



NO.	ITEM	Q' TY	DESCRIPTION
01	CABLE	1PCS	3V UL2468 18AWG/2C 80℃/300V L=1500mm 5V UL2468 20AWG/2C 80℃/300V L=1500mm 9V/12V UL2468 22AWG/2C 80℃/300V L=1500mm 15V/24V UL2468 24AWG/2C 80℃/300V L=1500mm
02	PLUG	1PCS	DC PLUG:5.5*2.1*10

Note:  
1.Compliance with RoHS  
2.No display tolerance: ±0.12  
3.Unit: mm

## Package Drawing



Note:

1. Products are related to laws and regulations: see "Features" and "EMC".
2. Our products shall be classified according to ISO14001 and related environmental laws and regulations, and shall be handled by qualified units.
3. If the product is not operated within the required load range, the product performance cannot be guaranteed to comply with all parameters in the datasheet ;
4. Unless otherwise specified, parameters in this datasheet were measured under the conditions of Ta=25 ℃, humidity<75% with nominal input voltage and rated output load;
5. All index testing methods in this datasheet are based on our Company's corporate standards;
6. We can provide product customization service; Please contact our technicians directly for specific information;

## Mornsun Guangzhou Science & Technology Co., Ltd.

Address: No. 5, Kehui St. 1, Kehui Development Center, Science Ave., Guangzhou Science City, Luogang District, Guangzhou, P. R. China

Tel: 86-20-38601850-8801

Fax: 86-20-38601272

E-mail: sales@mornsun.cn

**MORNSUN®**

MORNSUN GUANGZHOU SCIENCE & TECHNOLOGY CO.,LTD.

2017.08.21-A/0

Page 4 of 4

MORNSUN Guangzhou Science & Technology Co., Ltd. reserves the copyright and right of final interpretation