# MORNSUN®



### 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 Australia plug
- Small wall-mounted type

MI005-VA 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 AS/NZS60950. The entire series supplies different models with output voltages range between 3V and 15V that can satisfy the demands for the various types of consumer electronic devices, telecommunication devices, office and civil applications devices.

	Model	MI00503VA	MI00505VA	MI00509VA	MI00512VA	MI00515VA		
	DC Voltage	3V	5V	9V	12V	15V		
	Rated Current	1.0A	1.0A	0.5A	0.5A	0.4A		
	Current Range	0-1.0A	0-1.0A	0-0.5A	0-0.5A	0-0.4A		
	Rated Power	3.0W	5.0W	4.5W	6.0W	6.0W		
	Voltage Accuracy	±7%	±5%	±5%	±5%	±5%		
	Line Regulation	±1%	±1%	±1%	±1%	±1%		
	Load Regulation	±5%	±5%	±5%	±5%	±5%		
Output	Ripple &Noise*	120mVp-p max	120mVp-p max	120mVp-p max	120mVp-p max	150mVp-p max		
	Start-up Time	3s@100-240VAC, full load						
	Hold-up Time	10ms@115VAC, full load, 20ms@230VAC, full load						
	Rise Time	80ms max						
	Overshoot/ Undershoot	±10%						
		Output voltage range ±5%, load 25%-50%, 50%-75%, slope: 0.5A/us, frequency: 50Hz-10KHz						
	Transient Response	Output voltage ran	ge ±5%, load 25%-50%	6, 50%-75%, slope: 0.5/	A/us, frequency: 50Hz	-10KHz		
	Transient Response	Output voltage ran 90 - 264VAC	ge ±5%, load 25%-50%	6, 50%-75%, slope: 0.5/	4/us, frequency: 50Hz	-10KHz		
			ge ±5%, load 25%-50%	6, 50%-75%, slope: 0.5/	A/us, frequency: 50Hz	-10KHz		
	Input Voltage	90 - 264VAC	ige ±5%, load 25%-50% 73.62%	6, 50%-75%, slope: 0.5/ 77.05%	A/us, frequency: 50Hz 78.88%	-10KHz 78.88%		
nput	Input Voltage Input Frequency	90 - 264VAC 47 - 63Hz	73.62%					
nput	Input Voltage Input Frequency Efficiency(Typ.)	90 - 264VAC 47 - 63Hz 64.33%(ERP V)	73.62% C, full load					
nput	Input Voltage Input Frequency Efficiency(Typ.) Input Current	90 - 264VAC 47 - 63Hz 64.33%(ERP V) 0.15A Max@100VAC	73.62% C, full load					
nput	Input Voltage Input Frequency Efficiency(Typ.) Input Current Inrush Current	90 - 264VAC 47 - 63Hz 64.33%(ERP V) 0.15A Max@100VA0 Cold start: 30A/230	73.62% C, full load VAC					
nput	Input Voltage Input Frequency Efficiency(Typ.) Input Current Inrush Current No Load Power	90 - 264VAC 47 - 63Hz 64.33%(ERP V) 0.15A Max@100VAC Cold start: 30A/230 <0.1W	73.62% C, full load VAC AC					
	Input Voltage Input Frequency Efficiency(Typ.) Input Current Inrush Current No Load Power Leakage Current	90 - 264VAC 47 - 63Hz 64.33%(ERP V) 0.15A Max@100VAC Cold start: 30A/230 <0.1W 0.25mA Max@240V/ Rated output volta	73.62% C, full load VAC AC	77.05%				
nput Protections	Input Voltage Input Frequency Efficiency(Typ.) Input Current Inrush Current No Load Power Leakage Current Over Voltage	90 - 264VAC 47 - 63Hz 64.33%(ERP V) 0.15A Max@100VAC Cold start: 30A/230 <0.1W 0.25mA Max@240V/ Rated output volta	73.62% C, full load VAC AC ge 110%-150% nt 110%-200%, self-rec	77.05%				

**MORNSUN**<sup>®</sup>

MORNSUN Guangzhou Science & Technology Co., Ltd.

## 5W AC/DC Adapter

### MI005-VA Series

# MORNSUN®

General Specifications					
Item	Operating Conditions	Min.	Тур.	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	ĉ
Storage Temperature		-25		70	C
Operating Humidity				90	0/ DU
Storage Humidity				95	%RH
Altitude				2000	m
Lifetime	<b>25</b> ℃	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)55.40mm x (W)40.16mm x (H)44.57mm		
Weight	58g (Тур.)		
Cooling Method	Free air convection		

EMC Specifications				
	RE	EN55032, CLASS B		
EMI	CE	EN55032, CLASS B		
<b>F1 40</b>	ESD(MAX)	IEC/EN61000-4-2 Contact ±8KV/Air ±15KV	perf. Criteria B	
	RS	IEC61000-4-3 3V/m	perf. Criteria A	
EMS	CS IEC61000-4-6 3Vrms	IEC61000-4-6 3Vrms	perf. Criteria A	
	Surge(MAX)	IEC/EN61000-4-5 ±2KV/ ±2KV	perf. Criteria B	
Nata, Otanal	and ECD a antarat : 410//A	$\frac{1}{100}$		

Note: Standard ESD contact  $\pm$ 4KV/Air  $\pm$ 8KV, surge  $\pm$ 1KV/  $\pm$ 1KV.

Safety Standards				
Application Fields	Standard	Status	Note	
IT	AS/NZS60950	Approved		
AV	AS/NZS60065	Meet		
Home Appliances	AS/NZS61558-2-16	Meet		



MORNSUN Guangzhou Science & Technology Co., Ltd.

2019.11.19-A/2 Page 2 of 4

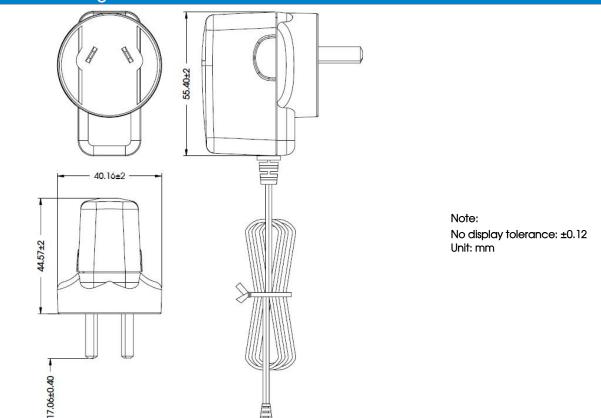
MORNSUN Guangzhou Science & Technology Co., Ltd. reserves the copyright and right of final interpretation

# 5W AC/DC Adapter

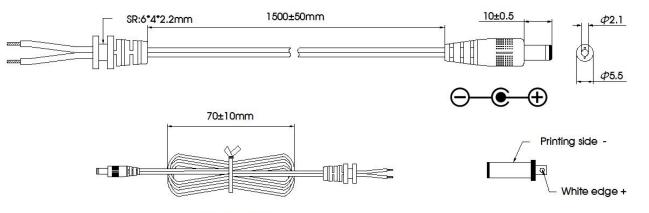
## MI005-VA Series

#### **Mechanical Drawing**





## DC Wire Drawing



Winding Pattern

NO.	ITEM	Q' TY	DESCRIPTION	Note:
01	CABLE	1PCS	3V UL2468 22AWG/2C 80°C/300V L=1500mm 5V/9V/12V/15V UL2468 24AWG/2C 80°C/300V L=1500mm	1.Compliance with RoHS 2.No display tolerance: ±0.12
02	PLUG	1PCS	DC PLUG:5.5*2.1*10	3.Unit: mm

## **MORNSUN**<sup>®</sup>

MORNSUN Guangzhou Science & Technology Co., Ltd.

2019.11.19-A/2 Page 3 of 4

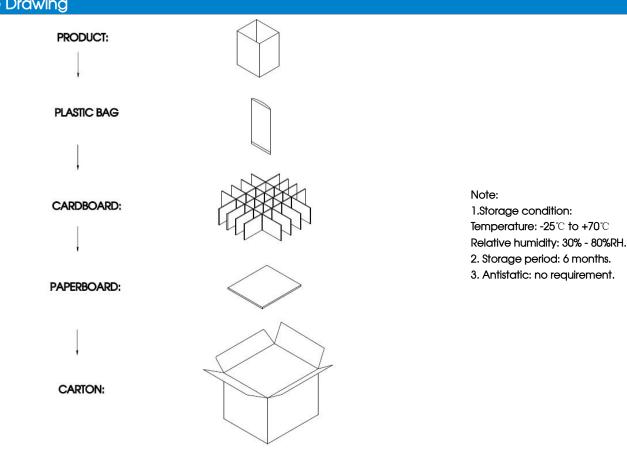
MORNSUN Guangzhou Science & Technology Co., Ltd. reserves the copyright and right of final interpretation

## 5W AC/DC Adapter

#### MI005-VA Series

#### Package Drawing





#### Note:

- 1. Products are related to laws and regulations: see "Features", "EMC" and "Safety standards".
- 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°C, humidity <75% with nominal input voltage and rated output load;
- 5. All index testing methods in this datasheet are based on our company 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, Huangpu District, Guangzhou, P. R. ChinaTel: 86-20-38601850Fax: 86-20-38601272E-mail: info@mornsun.cnwww.mornsun-power.com

**MORNSUN®** 

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

2019.11.19-A/2 Page 4 of 4

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