## **MORNSUN**<sup>®</sup>



#### 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 Europe plug
- Small wall-mounted type

MH05-E-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 EN60950. 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.

Electric S	pecifications							
	Model	MH05-0300100E-A	MH05-0500100E-A	MH05-0900050E-A	MH05-1200050E-A	MH05-1500040E-A		
Output	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%		
	Ripple &Noise*	80mVp-p max	80mVp-p max	90mVp-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	30ms max						
	Overshoot/ Undershoot	±10%						
	Transient response	Output voltage range ±5%, load 25%-50%, 50%-75%, slope: 0.5A/us, frequency: 50Hz-10KHz						
	Input voltage	90 - 264VAC						
Input	Input frequency	47 - 63Hz						
	Efficiency(Typ.)	64.33%(ERP V)	73.62%	77.05%	78.88%	78.88%		
	Input current	0.15A Max@100VAC, full load						
	Inrush current	Cold start: 30A/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		ple and noise are measured by 20MHz bandwidth; at full load, 100-240VAC input, output terminated with a 0.1uF ceramic acitor and a 10uF electrolytic capacitor.						

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2017.08.21-A/0 Page 1 of 4

## 5W AC/DC Adapter

#### MH05-E-A Series

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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		
Storage Temperature		-25		70	°C	
Operating Humidity				90	0/011	
Storage Humidity				95	%RH	
Altitude				2000	m	
Lifetime	25℃	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)57.00mm*(W)37.00mm*(H)25.00mm			
Weight	58g(Typ.)			
Cooling Method	Free air convection			

EMC Specifications				
EMI	RE	EN55032, CLASS B		
	CE	EN55032, CLASS B		
	ESD	IEC/EN61000-4-2 Contact ±8KV/Air ±15KV	perf. Criteria B	
EN 40	RS	IEC61000-4-3 3V/m	perf. Criteria A	
EMS	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		
Π	EN60950	Approved			
AV	EN60065	Meet			
Home appliances	EN61558-2-16	Meet			
Lighting	EN61347	Meet			



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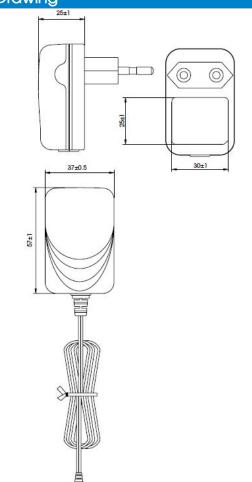
2017.08.21-A/0 Page 2 of 4

## 5W AC/DC Adapter

#### MH05-E-A Series

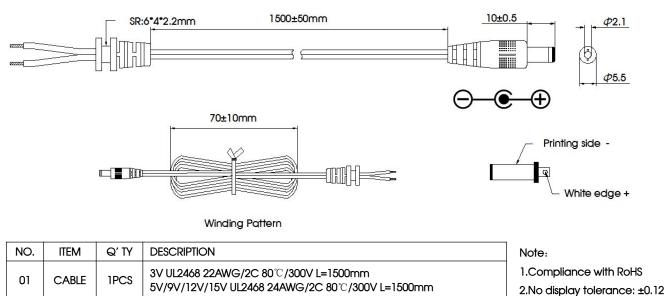
#### Mechanical Drawing





Note: No display tolerance: ±0.12 Unit: mm

#### DC Wire Drawing



3.Unit: mm



PLUG

1PCS

DC PLUG:5.5\*2.1\*10

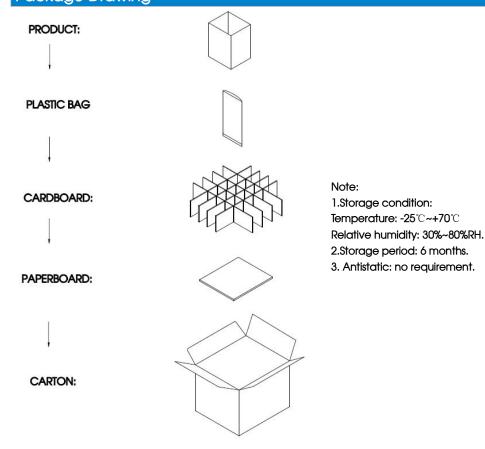
02

### 5W AC/DC Adapter

MH05-E-A Series

Package Drawing

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#### 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 °C, 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;

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2017.08.21-A/0 Page 4 of 4

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